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## Presidential Address

Delivered at the Annual Meeting of the Manitoba Medical Association, September, 21st, 1949, by  
Dr. H. S. Evans, Retiring President

### The Health Services Act

The constitution of the Manitoba Division of the Canadian Medical Association states, that at the annual business meeting of the Association, the President shall deliver an address. The time has arrived for the fulfilment of this obligation. Therefore, if you will bear with me for a short while, I will complete this duty of my office.

Before proceeding with the main subject of my speech, I wish to take this opportunity to thank you for the honour which you conferred upon me by electing me your President. I have endeavoured to carry out my duties to the best of my ability and trust that my actions have met with your approval. However, the President of an organization such as this is merely the figurehead around which the organization functions. It is the executive body and the members of the Association who do the real work and it is upon them that its strength and successful function depends. During the past year, all members of the Executive have worked hard and faithfully in the fulfilment of their obligations, and all members of the Association, who have been called to perform special duties, have given willingly of their time and performed their tasks to the best of their ability. To the members of the Executive of the Manitoba Medical Association, to the members of special committees which functioned during the year, and to the members of the various committees responsible for the organization of the Annual Convention, I extend my heart felt thanks for the splendid support which you have given me and for a job well done.

Today I have chosen as the subject for my address the Health Services Act. I have chosen this subject for several reasons. Firstly, because of its vital importance to the future of organized medicine in Manitoba. It is one of the first legislative procedures to be undertaken by the Government of this Province, aimed at a comprehensive health scheme and which is designed to fit into health measures on a Federal level, if and when such measures are put into being. True, you might say that the Health Services Act is very limited in its scope and that it has little or no effect on your present practice of medicine. But it is a beginning, and it is my impression that the present act is merely a probing by the Government to determine their future actions. The success or

failure of the present act will be the guide to decide how extensive and in what direction the future course of the Department of Health will be in promoting health programmes. Secondly, this act created an Advisory Commission to advise the Government concerning the administration of this important health measure. Thus, we were given a means of determining the value of such a Commission. Such opinions should be of immense value in guiding our course of action in the event that commissions of a similar nature are proposed in the future. Thirdly, as a member of the Advisory Commission since its formation in 1945, I have been brought into intimate contact with the Health Services Act and have had a good opportunity to observe its strength and its weakness.

As you may remember, the Manitoba Health Act became law in 1945. It was a scheme devised by the Department of Health and Welfare of the present Provincial Government and which was designed to promote certain health measures within the Province so that the health of the people could be more effectively cared for by the medical profession. It consisted of four basic principles, namely (i) prevention of disease; (ii) diagnostic facilities; (iii) medical care; (iv) hospital accommodation. The Government was to be guided by the Advisory Commission in effecting the development and enforcement of these principles. This body was composed of lay, professional and government members and it was claimed by the Minister of Health that the commission was unique by virtue of the fact that it had powers never given before to a body of this kind.

The first basic principle of the Health Act is prevention of disease. As the term implies it is concerned with preventative medicine. The essential feature of this phase of the act is the establishing of full time health units. Each unit comprises a variable number of municipalities as determined by many factors such as density of population, geography of the area involved, etc., and is headed by a full time health officer as medical director. It is staffed with the necessary personnel of nurses, sanitary inspectors, etc. The units are charged with the enforcement of health laws, immunization programmes, venereal disease and tuberculosis control, pre-school and school examinations, pre-and post natal work and all other functions associated with the duties of a Health Officer. At

the same time the Unit is intended to complement the work of the local practitioners in the area and in no way compete with him in the performance of his duties.

At its inception, the advantages of this portion of the Act were stated to be (i) it provided a proper basis on which to build a scientific health programme; (ii) it relieved the municipality of all provisions for payment of Health Officers; (iii) it relieved the municipality of the responsibility of immunization programmes, examination of school children, etc.; (iv) it afforded rural practitioners consultative and co-operative services in regard to all forms of preventative medicine, without interfering or infringing upon their rights; (v) the health units plan offers the most effective approach in solving present problems in reference to maternal mortality, tuberculosis, venereal disease, etc. The Act provides that these units remain under provincial control but that the cost be shared by the Provincial Government, and the Municipalities concerned, on a two to one basis.

To date I think it fair to state that the Department of Health and Welfare has made an earnest effort to fulfil this portion of its programme as promptly and as efficiently as it could. New units are being organized and put into operation as rapidly as the procedure of forming a unit and the obtaining of the necessary personnel will allow. It is evident that the relatively low scale of salaries paid to full time health officers is a stumbling block to obtaining the doctors necessary for this purpose. There would be little difficulty in encouraging physicians to specialize in this field of medicine if the remuneration approached the salary schedule proposed at the meeting of the Canadian Medical Association this year. I think it worth while to draw this fact to the attention of the Minister of Health. The health units scheme is not new. Health units have been operating for years to the benefit of the peoples involved. The preventative medicine phase of the act puts them on a permanent basis and provides a standard method of procedure so that units may be established as rapidly as possible and operated at a high level of efficiency. The value and the need for this type of service is fully recognized.

The second basic phase of the Health Act is to provide diagnostic facilities, both of the laboratory and the X-ray type. These facilities are to be the required equipment of all general hospitals. The capital cost of such equipment is the sole responsibility of the Province itself, the operational cost being shared by the Government and the Municipality on the basis of an estimated cost of 50 cents per individual per year. Of this, the health department is to pay thirty-three cents and the municipality seventeen cents. Cost in excess of

the fifty cents per individual per year is to be borne by the municipality.

In advocating the diagnostic phase of the Health Act, the Minister claimed the following advantages: (i) such facilities are essential to the diagnosis and treatment of disease; (ii) well trained doctors are attracted to rural areas; (iii) the great middle class and the poor would have adequate diagnostic facilities made available, whereas now the cost makes such services partially or wholly unprocurable. I think that you will agree that the first premise is correct—adequate laboratory and X-ray facilities are essential to the diagnosis and treatment of disease. That everyone should have these facilities available and not be deterred from using them by prohibitive costs is also a commendable objective of the programme. If doctors are attracted to rural areas and induced to remain there, then no one can deny that a very significant piece of work has been accomplished. Let us review the accomplishments to date to see what progress has been made in reaching these objectives.

The first diagnostic centre was established in the Dauphin area. This is the only centre of this type which has functioned over a period of time sufficiently long to allow one to arrive at any conclusions as to the success of the venture. Another diagnostic centre has been opened in the Selkirk area but this has been operating for a few months only—not long enough to allow opinions of any value to be formed. There seems to be considerable difference of opinion as to the efficiency and value of the Dauphin unit. The Department of Health and Welfare has nothing but praise for what has been accomplished and it has been responsible for a great deal of very favourable publicity in the daily papers. It is another matter when the doctors practicing in the area are interviewed. Just prior to this meeting, the Executive of the Manitoba Medical Association received a report from a special committee which was delegated to investigate and report on the Dauphin Diagnostic Centre. According to this report, the doctors in the Dauphin area are unanimous in their disapproval of what has been accomplished to date. They claim that rather than making the diagnostic facilities more readily available, the services provided are less efficient, and, if the true picture is presented, more costly than before.

Prior to the advent of this service in Dauphin, a patient could come in from out of town, consult his doctor, have his examination completed and usually be able to go home the same day. This service would include the routine laboratory tests. Now, the picture is somewhat different. Due to the fact that the diagnostic laboratory closes promptly at five, these patients often are required to wait over to the next day before their tests are

completed. This entails additional expense to the patient, both for his keep while away from home and for additional loss of time. It also is responsible for waste of the doctors time. All of these patients must report back to the doctors for the result of their tests. This necessitates two consultations where one usually sufficed. They also state that all important administrative decisions must be referred to Winnipeg, rather than being decided locally. This greatly mitigates against efficiency. The costs of the Health Unit Scheme in Dauphin appear to be considerably more than the original plan called for. This additional cost must be met by the Municipalities involved. Moreover, the maintenance costs of the buildings in which the unit operates are provided by a department of the Government other than that of Health and there are certain other expenses about which it is difficult or impossible to secure accurate estimates. When these expenses are considered collectively, and to them are added the additional expenses of loss of time and of board and room while away from home, then it is obvious that the average individual is not getting these services at a very reasonable cost. This fact, coupled with the inconvenience and inefficiency of the unit would indicate that the average patient is not as well looked after as he was when all the services of this type were provided by the local physicians and the local hospital.

With reference to the Dauphin Hospital, until the advent of the Diagnostic Unit, it usually managed to make ends meet. Since the unit has started to operate, the hospital has been operating at a continuous and mounting loss. No doubt, the marked increase in operational costs of the hospital is part of the explanation but it is worth while considering the loss incurred by the hospital due to decrease of revenue from laboratory and X-ray services, items of no small consideration.

It was claimed that the Diagnostic Services, as provided by the Health Services Act, would attract doctors to rural areas. This does not seem to be the result since the unit has started to operate. Patients referred to the Unit from outside of Dauphin usually wish to remain in Dauphin to receive treatment. The result is to attract patients to the larger centre for their treatment. The natural sequence is for the doctors to move in to this area in order to be in contact with the greatest number of patients. Therefore, it is logical to conclude that the scheme is defeating one of its main objectives, by enticing doctors from strictly rural areas.

The act also states that all general hospitals are to be equipped with diagnostic facilities at the expense of the Department of Health. Later the Advisory Commission specified the standards that

a general Hospital must meet before this equipment is made available to it. I can name at least one new general hospital which has met these standards and which has been in operation for approximately two years. To date, this hospital has not been equipped with these facilities. The lack of this equipment is greatly handicapping the hospital and the doctors using it. No doubt there is some adequate explanation for this state of affairs.

The task of supplying these services to Winnipeg and St. Boniface is a huge one and the need would appear to be unnecessary at present. The consensus of opinion of the medical profession in the Winnipeg area is that the population is adequately served by the facilities available now. In a recent poll, the majority of doctors concerned subscribed to this opinion.

Thus, after reviewing the accomplishments of this phase of the Health Act, my conclusion would be that the diagnostic centre scheme is far from the final answer for providing this type of service to the people of Manitoba. It overlooks the fact that it is almost impossible to divorce diagnosis from treatment. This could be achieved by a plan of prepaid medical care based upon a proven scheme such as offered by the Manitoba Medical Services and it would be achieved with the least disturbance of patient doctor relationship.

The third basic phase of the Health Act is that of medical care, or the provision for curative medicine. It aimed to provide that, (i) the services of a general practitioner should be readily available to all people of the province when they are ill; (ii) the cost to be provided for in advance by a municipal tax, which would distribute the burden equitably; (iii) payment of the general practitioner be by salary, capitation fee, or for services rendered, depending upon the arrangement made between the municipality and the doctor; (iv) that the Provincial Government would contribute to the cost of the curative medicine programme to the extent of fifty cents per person per year provided the municipality entered fully and co-operatively into the disease prevention scheme.

The advantages claimed for this part of the programme were that, (i) it would provide adequate medical care within the municipality, which could be used unhesitatingly by the patient, because he would have no need to worry about the cost; (ii) it would allow the doctor to take a more active part in public health programmes; (iii) payment for medical care in advance has proven to be entirely satisfactory.

To date very little has been accomplished with this phase of the scheme. There were a number of municipal doctors practicing in Manitoba prior to the act, and to my knowledge their status has



not been materially affected. I do not think that it is any secret that the present Department of Health greatly favours the municipal doctor scheme, with the doctor on a salary basis, and to a large degree under the control of the department. The intensive effort of the department to force first year medical students to sign a contract binding them to practice in rural Manitoba after graduation, supports the latter part of this contention. In spite of the views of the Department of Health and the opinions of municipal doctors who are favourable to this type of medical practice, I think that the great majority of the members of this association would strongly oppose the universal extension of the municipal doctor scheme to the province.

Shortly after the introduction of the Health Services Act it was stated publicly by the Department of Health that there was a shortage of approximately two hundred and fifty doctors in rural Manitoba. This assertion received wide-spread publicity in the press and resulted in much unfavourable criticism of the medical profession by the laity and the government. The responsibility for this appalling situation was laid fully at our door. It was implied by more than one lay organization that unless we, within the profession, took immediate and drastic steps to remedy the situation, it would be remedied for us, and very probably in a manner not to our liking. However, with a more thorough and more accurate investigation of the situation, it has been shown that at the most, not more than fifteen doctors could be placed in rural Manitoba, in areas in which they are needed and in which they could earn a living. The accuracy of this statement can be proven. It has been brought to the attention of the Minister of Health and has not been disputed by him. To date there has been no attempt to publicize the true state of affairs and correct the harm done to the reputation of the medical profession due to the unfavourable publicity it received. There is a vast difference between two hundred and fifty and fifteen. No doubt the instigators of the original contention are a little embarrassed by its inaccuracy.

Presuming that such a shortage of doctors did exist, I fail to see how we can accept full responsibility. Surely the fact that the School of Medicine of Manitoba is using all its facilities to full capacity when it accepts a class of sixty students each year is of importance. Should the government wish to train a larger number of doctors, then it must be prepared to spend large sums of money to increase the capacity of the college.

At the time that the alleged shortage of doctors in rural Manitoba was a prominent subject in the press, the Manitoba Medical Association was

accused of being a tightly organized body which rigidly controlled the number of doctors graduating each year and which refused to allow doctors from other countries to set up practice. In this way we were purported to be creating and maintaining a shortage of doctors for our own advantage. Probably so that we could work much harder and have a coronary attack at forty-five rather than at fifty-five. I think that the time is long past due for the laity to be informed of the fact that the Manitoba Medical Association is a voluntary organization in the strictest sense of the word. We have no power to refuse any doctor the right to practice in the province and our control over our members is feeble indeed, when we compare it to the control which the average union exerts over its members. The license to practice medicine within the province is granted by the College of Physicians and Surgeons of Manitoba. This is a body incorporated by an act of parliament and is entirely separate from the Manitoba Medical Association. It is this body which determines the standards of training necessary for the practice of medicine within the province and it is its duty to maintain these standards at the highest possible level. Only in this manner are the people of the province ensured of the best possible medical care. There is nothing to be gained by lowering these standards and allowing the province to be flooded with graduates from second grade medical schools, be they from Canada, the United States or Europe. It is worthy of note that there are as large a proportion of second rate schools in Europe as in any other part of the civilized world. Only an accurate examination of credentials by a capable body such as the College of Physicians and Surgeons can decide if the training of a doctor meets the standards comparable to those of graduates from our own school. When such can be proven, then no doctor is denied a license and the right to practice within the province. Surely it is our duty to insist that these standards are maintained at the highest possible level.

From the standpoint of providing adequate medical care to Manitoba, I would like to quote from an address given by the Honourable Ivan Schultz, the Minister of Health: "We are glad to note that within the city of Winnipeg a very forward looking step has been taken by the medical profession itself through the Manitoba Medical Services which provides for the payment of cost of illness in advance. It is possible that the Manitoba Medical Services may offer contracts to rural Manitoba at an early date in the future." It is important to note that this date has arrived and that the Manitoba Medical Service programme is being offered to rural Manitoba. Our hope is that this scheme will be utilized when a more comprehensive health plan is considered for the Province.



The fourth basic principle of the Health Act is concerned with the provision of the necessary hospital accommodation and its control. It called for (i) the provision of sufficient and adequate hospital facilities to all people of the province; (ii) the setting up of a Hospital Council, advisory to the minister, which would define hospital areas and supervise the standards of hospitals built and in this way avoid duplication of services; (iii) originally the hospital area was responsible for the cost of the hospital built. Latterly federal provincial health grants have defrayed part of the cost.

The original hospital scheme foresaw the setting up of three major hospital areas in the province, namely, Winnipeg, St. Boniface, Dauphin and Brandon. These areas were to be capable of handling all types of medical and surgical cases. In turn, each major hospital area was to be complemented by a number of smaller general hospitals, each serving a district, as defined by the hospital council. These hospitals were to be of a minimum size or larger, were to be equipped with X-ray and laboratory facilities by the department of health. In them the average run of medical and surgical cases were to be handled. From them the more difficult medical and surgical problems were to be referred to one of the larger hospitals. Finally each secondary hospital was visualized as having a series of small nursing units built at strategic sites around it. Each nursing unit would be a small, inexpensive structure, economical to operate and designed to house the local doctor's office, as well as beds for emergency medical and surgical attention and probable confinement cases. It was not intended for major surgery or medical care, but was to be a place for emergency attention, pending the removal of the case to a larger hospital, such a plan, if fulfilled, would have provided an efficient distribution of hospital beds in the province.

But let us consider what has actually taken place in respect to this plan. The scheme appears to have gone astray somewhat, in that too much enthusiasm has been expended in the building of the so called nursing units. The logical development of the hospital plan would be to concentrate on the secondary and major hospitals, making sure that the province was supplied to the best advantage. Then the small nursing units could have been organized and built around them, as the need arose, making sure that their construction would in no way interfere with the efficient operation of the larger hospital. Several hospital areas have been organized and small general hospitals built, but a relatively large number of nursing units have been opened. The latter structures have grown in stature until they are small general hospitals of ten to twelve beds, costing a great deal of money

to build and equip. I fail to see how they can be operated economically and I venture the suggestion that they will prove to be a serious financial drain on the municipalities responsible for their maintenance. Moreover, they are a serious source of competition to the larger hospitals, so that rather than complementing the latter, they are a handicap. Witness what is happening to the hospital in the Killarney area. This institution was opened about two years ago. It is a well constructed, well equipped modern hospital of thirty beds, located in an area which was in urgent need of hospital accommodation. Yet it has never been filled to capacity since it opened. When my last information was obtained in the spring of this year, the average number of patients was ten to twelve and the largest number in the hospital at any one time had been eighteen. What is the reason for this? The development of the so-called nursing units in adjoining areas might well be the answer. It has been the consistent opinion of many members of the advisory commission, including the medical members, that these nursing units should not have been built on such a luxurious scale or in such large numbers and yet the policy has been continued. Reference to Winnipeg Tribune, Sept. 17.

It is interesting to note that, in a recent address, the Minister of Health stated that the hospital policy would have to be slowed down or halted. The reason given was the shortage of nurses. I wonder if the unsound economy of the scheme as being developed at present might not be another reason. The American Hospital Association has stated that a general hospital of one hundred and fifty beds is the smallest unit that can be operated upon a sound financial basis.

The argument has been advanced that the building of the nursing units would attract doctors to rural areas. No doubt this is true. But, if a doctor could be assured of a house to live in, adequate office space, some accommodation in which to care for emergencies, and be given access to a well equipped general hospital, within reasonable distance over all weather roads, then I am sure that there would be little difficulty in securing recent graduates for rural practice.

So much for the basic principles of the Health Services Act. There remains to be discussed the Advisory Commission, as established by these regulations. In seeking the support of the medical profession to the Health Act the Minister of Health and his deputy, emphasized the importance of the Commission. It was pointed out that this body would have great powers, so great that its consent would be necessary before regulations and modifications of the act could become active. Furthermore, the medical profession would be generously represented in the Commission. Therefore, they would have a strong influence in the development

of this health measure. The arguments were plausible and we offered no serious opposition to the law being passed and have actively co-operated in its enforcement.

The Advisory Commission consists of eleven members, namely, the Deputy Minister of Public Health and Welfare, who is an ex-officio member, and ten others. All are appointed by order of the Lieutenant Governor on the following basis: three members nominated by the Executive of the Manitoba Division of the C.M.A., three members nominated by the Executive of the Union of Manitoba Municipalities from among their numbers; one member nominated by the Board of Governors of the University of Manitoba, from the Faculty of Medicine; three members nominated by the Minister. The Chairman and Vice-Chairman are appointed by the Lieutenant-Governor-in-Council from among the members of the Commission. Thus, on an eleven-man commission we have five representatives if we include the Deputy Minister. No one will deny that this is a fair representation and we would be happy about it indeed, but for one fact. As the policies of the present government under the Health Act became apparent, it was obvious quite early in the life of this commission that it was an advisory body in the strictest sense of the word and that the present department of health intended to pursue its policies regardless of the opinion of the commission or of the medical profession. Seemingly endless hours of debate and sometimes heated argument were necessary before agreement was reached on the principles of a contract for municipal doctors. This was accepted as part of the health act but I have failed to see any earnest effort by the Department of Health to have it adopted by all municipalities employing municipal doctors. In all fairness, it must be admitted that part of the fault for this is ours. Several municipal doctors have disregarded the model contract for various reasons. Unfortunately, this failure to act as a united body has not been to our advantage. Much time was spent in outlining a plan for the impartial distribution of loans to medical students, but we were told that this was not a concern of ours, but of the minister alone. Hospital areas are continually being discussed, but I have yet to observe that we have influenced their formation. Much time is taken in keeping us

posted about the manner in which Federal Health Grants are being spent. But this is for information only, as these policies are planned and effected without the advice of the commission or the Manitoba Medical Association.

While the powers of the Commission are very limited, yet those of us who have served on it feel that our time has not been wasted. We have learned that an Advisory Commission is of little value in influencing government actions. A commission to be of value must be an administrative one. I think that we have convinced the lay members of the Commission that the medical profession is anxious to co-operate in any reasonable health measure and that we are more than anxious that the residents of this Province receive the best medical care possible. In turn, we have been shown by the lay members of the Commission that, while their main objective is good medical care, they are willing and concerned that the doctor be enabled to earn a fair living. Finally, by virtue of our position on the Commission, we are enabled to detect government policy in its early formative stages. This function is extremely important and is adequate compensation for time which might otherwise appear to be wasted.

During the course of this address I have attempted to outline briefly the Health Services Act of 1945 and to discuss the successes and failures of its various policies, and particularly their effect on the medical profession. From the standpoint of providing adequate diagnostic and curative medical services, it is a long way from fulfilling its original aims and objectives. Any health scheme which fails to realize that diagnosis and treatment cannot be divorced is doomed to failure. Any health scheme which seriously disrupts the patient-doctor relationship is doomed to failure. Accepting the fact that health insurance measures will inevitably come, then let us urge the adoption of an overall scheme. One that will not interfere with our individual rights; one that will give the patient the best possible care and one that has proven practical and workable. As an Association we have this plan to offer to the government in the form of the Manitoba Medical Services. This is a scheme which can be readily adapted to provide the services demanded.



# S U R G E R Y

Edited by S. S. Peikoff, M.D.

## The Effect of Lumbo-Dorsal Sympathectomy and Splanchnic Resection in Hypertension

### A Preliminary Report on 18 Carefully Selected Cases Followed for 3-13 Years After Operation

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The Surgical treatment of Hypertension has gradually been acknowledged in the last few years as a worthwhile surgical procedure. Its acceptance has been exceedingly slow, due partly to the scepticism of the internist and many surgeons, the magnitude of the procedure, the inability to assess or predict the end result by any known test or series of tests, and in no small measure, to the frequent changes in technique and extent of sympathetic resection advocated by different surgeons. There have also been some adverse reports as to the efficacy of this procedure by reliable clinics.

My interest in the surgery of Hypertension began in 1936. At that time the late Dr. George Crile, Sr., of the Cleveland Clinic, published the results of Partial Resection of the Adrenal gland, together with adrenal denervation in Hypertension. In my first case, I removed half of one adrenal and denervated the organ at the same time on one side, quickly following this, however, a month later by sub-diaphragmatic resection after the method of Adson, Craig and Brown<sup>2</sup>.

1. From the Department of Surgery, St. Boniface Hospital.
2. Read before the Joint Meeting of the Canadian Association of Clinical Surgeons and Western Association of Clinical Surgeons, Winnipeg, Feb. 21, 22, 1949.

Today I wish to present the results of 18 cases of Hypertension that I have operated upon and followed over a period ranging from 13 to 3 years. I offer no apology for the small number of cases operated upon during this period, as it was from choice rather than lack of opportunity. Up until 1945, I made it a definite rule never to recommend this procedure, but rather to let the patient make his own decision after listening to a careful explanation as to the nature of the operation, its dangers and limitations. To the great majority it was presented as a method in the experimental stages. Some were so ill that they chose to have the operation, in spite of the fact that we held out little hope of success.

A word of explanation as to the procedure used is in order. Only the first case had an Adrenal Denervation with removal of one-half of the Adrenal. In the first five cases we used Adson and Craig's sub-diaphragmatic technique. In 1941 we switched to the method popularized by Smithwick<sup>3</sup> and used this procedure until we did our first Vagotomy. The Sympathetic chain was so beautifully exposed by the Trans-thoracic Approach that we abandoned all other approaches and now use the Trans-thoracic Approach exclusively.

For the sake of brevity we have endeavoured to tabulate in the following charts the outstanding details of the 18 cases presented today.

The patients have been allocated to three age groups: Group 1—18 to 30; Group 2—31 to 40; Group 3—41 to 60.

Table 1 covers all cases in Group 1.

Table 1  
Result of Splanchnic Resection in 5 Cases in Age Group 18-30, After 6-13 Years.

Number	Age at Operation	Year of Operation	Average Blood Pressure	Highest Blood Pressure	Type S, P/P	Urine—Sp. Gravity	Fundi.	Average Blood Pressure now	Drop in Blood Pressure	Years	Operation	Result Blood Pressure	Symptomatic Result	Remarks
1	M30	1936	150/100	165/110	1	1020	N	134/90	31/20	13	A	Fair	Good	Mild Hypoglyc.
2	F27	1936	210/130	225/130	3	1026	1	165/110	60/20	13	A	Fair	Fair	Supports Family.
3	M18	1936	150/110	162/110	1	1030	N	132/86	30/24	13	A	Good	Fair	Works hard regularly.
						(Had 68/44 3 years ago)								
4	F21	1942	190/120	220/135	A	1030	1	150/104	70/31	7	S	Good	Good	War plant 3 years.
5	F23	1943	166/110	188/128	1	1022	1	160/100	28/28	6	S	Good	Fair	Works regularly.

A—Adson & Craig—Subdiaphragmatic Splanchnic Resection.

S—Smithwick—Combined Supra. and Infra diaphragmatic Splanchnic Resection.



**Case 1.** Our first case was a boy of 30. He was incapacitated for work. He had spent several months in hospital periodically, had constant headaches, and great fatigue. His blood pressure fluctuated from a high normal to 165/110 under the slightest provocation. Since his operation he has held a responsible position for the past 11 years. He is mildly Hypoglycaemic — which is easily controlled by a few lumps of sugar or a nut-bar.

**Case 2.** This girl was given three years to live by an internist. She has never married—supports her parents—and works in an arduous occupation. Her average Blood Pressure in the Office, following a day's work, is approximately 165/110. In our opinion her previous operation was probably inadequate. We feel that she has done quite well and can be classified as a good result 13 years later.

**Case 3.** Four years ago this boy became a mortician. During the last four years his blood pressure has gradually gone up from a low of 92/62 in 1945. He now has a Gastric Neurosis which we attribute to an unsuitable occupation for his temperament.

**Case 4.** This is an exceedingly interesting case. Her highest blood pressure was 220/135. Following her operation, she went east to work in a War Plant. During those years her blood pressure averaged about 130/80. She returned to Winnipeg—married—became pregnant—went through a

normal pregnancy with a blood pressure of 120/80. Following pregnancy her blood pressure has gradually risen and now fluctuates around 150/100 or 160/110. After 7 years we consider her an excellent result.

**Case 5.** Symptomatically perfect. Her severe headaches have entirely disappeared. Her blood pressure has remained stable for the past six years, around 160/100. We have classified her as symptomatically good; blood pressure—fair only.

**Group 2.** Table 2. This Group of seven cases ranges in age from 31-40.

**Case 6.** This case is classified as a case of Malignant Hypertension. Following her operation she got some symptomatic relief, but was far from well. During the intervening years between her operation and her death she survived two attacks of Coronary Thrombosis and died in her third attack after seven years. Although we classify her as a poor result, we feel that we probably prolonged her life for several years.

**Case 7.** A practical nurse. In 1937 she had a right sided Haemiplegia and was in hospital for 3 months. Apparently she made a complete recovery except for the fact that she developed daily convulsive seizures. This girl was referred to us and was examined periodically over a period of several months before we decided to operate upon her. We eventually did a bilateral subdiaphragmatic Resection (after the method of Craig and

Table II

Result of Splanchnic Resection in 7 Cases in Age Group 31-40, After 3-9 Years.

Number	Age at Operation	Year of Operation	Average Blood Pressure	Highest Blood Pressure	Type S, B/P	Urine—Sp. Gravity	Fundi.	Average Blood Pressure now	Drop in Blood Pressure	Years	Operation	Result Blood Pressure	Symptomatic Result	Remarks
6	F37	1938	220/140	255/145	2	1025	3	Dead	—	7	A	Poor	Poor	1940: 220/130; '45: 270/40. Died with acute Coronary Thrombosis.
7	F32	1940	190/110	209/120	3	1020	2	215/115	Up	9	A	Poor	Fair	Freq: conv: pre-op. About 1 year post-op. Working as nurse.
		Recently—Trans. thoracic resection 4-12 done for recurrence of Convulsions.												
8	F31	1941	210/100	224/120	3	1029	2	154/90	70/30	8	S	Good	Good	Plenty of Domestic trouble.
9	F34	1944	200/110	235/120	3	1023	2	148/108	82/12	5	S	Fair	Fair	Good 1 yr. B. P. raised with Menopause.
10	M35	1944	220/140	230/160	1	1016	4	Dead	—	6M	S			Died—Hrt. failure 6 mths. later. Almost died in Hosp. with Uraemia.
11	M33	1945	198/130	208/138	2	1022	1	158/110	50/28	4	S	Good	Good	
12	F31	1946	190/110	210/120	3	1020	2	112/75	95/45	3	S	Good	Good	Work much easier to carry on.

A—Adson & Craig—Subdiaphragmatic Splanchnic Resection.

S—Smithwick—Combined Supra. and Infra diaphragmatic Splanchnic Resection.

Adson) with little post-operative trouble. Her blood pressure was little influenced but her seizures stopped except for about one attack a year.

Following her operation she returned to her work and carried on nursing until the spring of 1948. During the intervening years she suffered from occasional mild Coronary Thrombosis and was occasionally hospitalized for Cardiac Decom-pensation.

In the spring of 1948 she began to have more frequent seizures. After two consultations with Dr. G. Allison, whom she had been attending, we decided to do the Thoracic portion of her Sympa-thetic chain. Her blood pressure at this time was approximately 215/115.

On April 10th, 1948, we opened her left chest, resected her Thoracic chain from D.4 to 12 together with all her Splanchnics. Her blood pressure fell to 60/40 but was quickly raised to 100/60 and main-tained at that level. This was an exceedingly easy case to do and was finished in 35 minutes. She did exceedingly well for 48 hours, but while helping her to sit over the edge of the bed, she developed a Coronary Thrombosis. She fortunately survived. Following her remaining stay in hospital she had numerous anginal attacks which we finally found were relieved by sterile water. She was discharged—went back to work and had been carrying on as a nurse ever since—usually doing 12 hours duty. Our enthusiasm for doing the right side, however, has waned.

In spite of the fact that this girl's blood pressure has not been particularly influenced by operation,

we feel that the operation has prolonged her life for many years, stayed the progress of the disease and relieved her cerebral symptoms almost com-pletely. She is classified as a poor result, but I think unfairly.

**Case 8.** This patient was done in 1941. Her family life is full of marital trouble. In spite of her adverse home condition, her blood pressure is stabilized around 154/90.

**Case 9.** This woman has at least a fair result. Her blood pressure fluctuates a good deal. Her systolic has dropped considerably but her dias-tolic improvement is a very low affair. Her climacteric has come on during the past year and her symptoms have increased.

**Case 10.** This is a case of Malignant Hyperten-sion. The operation was attempted on the request of the patient and against our better judgment. His second side was never done—he died in six months.

**Case 11.** This case is probably our prize presentation. She is a school teacher by pro-fession. During the past year, prior to her resec-tion, she found it exceedingly difficult to carry on her work. She suffered from a great deal of headache and great fatigue. Following her resec-tion she was unable to stand for two weeks. She now carries on her work with perfect ease. Her highest blood pressure in the office has been 120/82—her average in our office since her opera-tion has been 110/75. She is most grateful.

**Table 3.** This series comprises an older Group—ranging from 41-60.

Table III

Result of Splanchnic Resection in 6 Cases in Age Group 41-60, After 4-8 Years.

Number	Age at Operation	Year of Operation	Average Blood Pressure	Highest Blood Pressure	Type S, P/P	Urine—Sp. Gravity	Fundi.	Average Blood Pressure now	Drop in Blood Pressure	Years	Operation	Result Blood Pressure	Symptomatic Result	Remarks
13	43	1941 1936	210/100 150/80	225/120	3	1034	1	150/84	75/36	8	S	Good	Good	Feels fine. Blood Pressure rise arrested.
14	46	1941	210/135 Malg:	230/140 H.T. Eyes damaged beyond repair.	2	1030	4	170/120 Operation 115/90.	60/20	7	S	Fair	Fair	Toward end—marked substernal pain, dyspnea, headaches, nausea. Died '48, Coronary.
15	48	1941 1930	220/100 240/140	230/120	3 La	1028 st seen	2 19	170/100 40	70/40	6	S	Good	Fair	
16	42	1945	180/110	200/130	2	1030	1	150/95	50/30	4	S	Good	Good	Feels very well. Leads active life. Was incapacitated.
17	43	1945	210/115	230/130	3	1025	2	158/98	72/32	4	S	Good	Good	Carries on an active life with ease.
18	60	1945	210/105	220/110	3	1022	1	166/88	54/22	4	S	Good	Fair	Only one side done. Nerve pain.

A—Adson & Craig—Subdiaphragmatic Splanchnic Resection

S—Smithwick—Combined Supra. and Infra diaphragmatic Splanchnic Resection.

**Case 13.** We watched this girl deteriorate symptomatically over a period of years and her blood pressure rise gradually year by year. In 1936 her blood pressure was 150/90. In 1941 it reached 225/120. She had developed a constant pressure in her head—severe headaches and remained at work as a furrier with great difficulty. Following her operation her average decrease has been 75 systolic and 36 Diastolic. She is exceedingly well and I have no more grateful patient.

**Case 14.** Malignant Hypertension. This woman was turned down by a Neuro-surgeon and the report by an eye-specialist at that time stated that her eyes were damaged beyond repair. At her request we operated upon her and got a fair response. Her blood pressure dropped to 115/90 on the table, and her average decrease over the years has been 60/20.

Two years ago I saw her being operated upon for an Adenomatous Goitre by another surgeon. She died six months ago with Coronary Thrombosis. During the last year of her life she suffered from a great deal of substernal pain, marked by dyspnoea, was unable to turn over in bed without help, had headaches, nausea and vomiting.

**Case 16.** This woman consulted me for high blood pressure. She suffered from great headaches, constant full sensation in her head and was incapacitated for carrying on her ordinary duties around home. She had given up all social activities.

We operated upon her in 1945 without untoward result. Her blood pressure has stabilized around 150/95, her disagreeable symptoms have entirely disappeared and she carries on her household duties without any trouble. In spite of my warnings she leads an active part in social life. She is very satisfied with her operation.

**Case 18.** This is rather an unusual case. This patient was a responsible executive in a very large organization — in charge of their Bond Department. Her family life was extremely unhappy. At the age of 60 she retired, owing to the fact that she felt she could carry on no longer—owing to increasing headaches, marked irritability and general malaise. She was constantly extremely tired. We had removed a diffuse toxic Thyroid in 1936—at which time her blood pressure was 160/90. Following retiring from her position, she was admitted to hospital for a rest, and her blood pressure promptly fell to her 1936 level. She felt extremely well. Under Sodium Amytol it fell to 135/82 and practically all her symptoms disappeared. The question of a Sympathectomy was discussed with her and carried out in June, 1945. She had a marked pleural effusion following the operation and a good deal of intercostal pain which has really never cleared up. She has persistently refused to have further surgery done and in July, 1948, her blood pressure was 166/88. This is far beyond the average age for Sympathectomy but we felt it was worth while in her case.

Summary

After many years of experience—based on a small number of carefully selected cases—we have concluded that Splanchnic Resection cannot be recommended to a patient as a curative procedure. We can, however, offer them some very worthwhile help.

In a very definite proportion of cases the Blood Pressure will be lowered. Table IV illustrates the drop in Blood Pressure we have been able to maintain in our 18 cases over a period of not less than three years, and in some cases, as long as thirteen years. An interesting comparison is made with Smithwick's<sup>4</sup> much larger series. Reference to

Table IV  
Result of Operation Bases on Diastolic Drop After 3-13 Years.

				Smithwick	A.C.A
Group 1—	Diastolic Pressure Lowered 30	mm of Hg. plus.....		40%	38.8
Group 2—	"	" 20-29 mm of Hg. ....		20.5	38.8
Group 3—	"	" 10-19 mm of Hg. ....		17.9	5.5
Group 4—	"	" 0-9 mm of Hg. ....		10.9	5.5
Group 5—	"	" same or more .....		9.7	11.0

Table V  
Summary of Results

Age	No.	Blood Pressure Result				Symptomatic Result				Total Summary Blood Pressure				Total Summary (Symptomatic)			
		Good	Fair	Poor	Dead	Good	Fair	Poor	Dead	Good	Fair	Poor	Dead	Good	Fair	Poor	Dead
18-30	5	2	3	0	0	3	2	0	0								
31-40	7	3	0	4	2	3	2	1	2	10	4	4	3	9	7	2	3
41-60	6	5	1	0	1	3	3	0	1								

Malignant Hypertension      2 - Died seven years.      1 - Died six months.      3 Definite cases.



Table 1, 2 and 3 indicates that Systolic Blood Pressure falls more than Diastolic, with a resultant lowering of Pulse Pressure.

In most of the larger series reported there has been improvement in the E.C.G., size of heart, eye grounds and kidney function.

In our series of cases we have found:

(A) Good drop in B.P. in 10, fair in 4 and poor in 4 cases.

(B) Marked symptomatic improvement in 9, fair improvement in 7 cases and no improvement in 2 cases (Table V).

The Symptomatic improvement does not always necessitate a marked drop in Blood Pressure; some cases with little improvement in Blood Pressure have had the best Symptomatic results.

The value of pulse pressure as a method of foretelling the end-result has yet to be proved. In our 18 cases we appear to have as good results in Type iii as Type ii (See Table VI).

#### Conclusions

1. Splanchnic Resection is a worthwhile surgical procedure in certain cases of Hypertension.

2. It does not cure Hypertension.

3. It has been definitely shown, however, to

(a) Lower the Blood Pressure over a period of years in a large number of cases.

(b) Give marked Symptomatic relief in a large percentage of cases.

(c) Retard and even caused regression of changes in brain, fundi, kidneys and in some cases, heart and blood vessels.

(d) Possibly decreases the number of cerebral accidents.

(e) It has been definitely proved to prolong life in grade 1, 2 and 3, and to make life much more worthwhile living in the majority of cases.

Is this Surgical procedure not more worth while than our present day method of Surgical treatment of cancer of the stomach, brain, pancreas and kidney.

**Table VI**  
**Results of Splanchnic Resection**  
**Based on Pulse Pressure**

Type 1	1 Case	Good Results
Type 2	9 Cases	3 Good 4 Fair 2 Dead
Type 3	8 Cases	3 Good 5 Fair 0 Dead

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## PATHOLOGY

Edited by D. W. Penner, M.D.

### Bone Dysplasias\*

A. J. M. Davies, M.D.

Since 1935 there has been considerable investigation and literature concerning what are now considered to be pathological entities which previously had been called under thirty-three different names such as bone cysts, osteitis fibrosa localisata, osteodystrophia fibrosa, non suppurative osteomyelitis, etc.

The writings of Jaffe and Lichenstein<sup>1 2 3</sup>, Thannhauser<sup>4</sup> and Green and Faber<sup>5</sup> have done much to classify these conditions into:

1. Fibrous dysplasias of bone.
2. Osteoid osteoma.
3. Eosinophilic granuloma of bone.

This is intended to be a survey of some of the recent literature on these three conditions and to present their life history, clinical aspects, pathological features and the current therapy.

**Fibrous dysplasia** of bone can occur in a monostotic or polyostotic form and while as yet the evidence is not conclusive it appears that they both have the similar bone lesions but the polyostotic form in 20% of cases has associated pigmentation of the skin and endocrine dysfunction.

The skeletal lesions are confined to one bone or to the bones mainly on one side of the body. The disorder has its inception during the period of longitudinal growth, and the lesion develops in the interior of bones. There is no familial or hereditary factor but rather a hamartoma (tumor like formation from flaws of development and defects of tissue combination).

The disease usually occurs in early childhood or during adolescence. The symptoms are usually local pain and tenderness. Occasionally pathological fractures occur. Radiologically there is an area of reduced density in the metaphysis close to the epiphysis, there is thinning of the cortex and

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some new bone formation may be indicated by fine ridges underneath the cortex.

Pathologically the basis of the lesion is a fibrous connective tissue which occupies a smooth walled partially loculated cavity. Microscopically there is fibrous tissue replacement of medulla with absorption of bony trabeculae; there may be degeneration in some areas leading to cyst formation, hyaline cartilage may be noted in other areas. Giant cells may be present and they represent a coalescence of connective tissue cells. The older lesions may have some lipid filled macrophages. The natural course of the disease is towards spontaneous healing by reparative ossification or displacement of the defect to the outside. Sometimes there is associated epiphyseal disturbances such as Osgood-Schlatters disease.

The differential diagnosis is from hyperparathyroidism by a study of the blood calcium and phosphorous; from Paget's disease by the difference in ages as Paget's is rare under 40 and also Paget's presents a thickened cortex, from Ollier's disease by the defect here being in cartilage with an irregular metaphysis; from the osteogenesis imperfecta by the familial history and the decalcified slender bones; from the lipid reticuloses by other stigmata being present such as splenomegaly and by marrow picture studies.

Treatment is limited to management of the pathological fractures and deformities till maturity is reached when healing usually sets in or irradiation by curettement if symptoms are severe.

**Osteoid osteoma** may have its origin in spongy bone, or at the periosteal or medullary surface. The disorder has a predilection for adolescents and young adults. The lesions occur in the bones of the limbs and the vertebral column. There seems to be no relation between trauma and the disorder. Principal complaint is of pain which increases in severity. Local swelling is apparent in some instances.

Radiologically there is an oval area of sclerosis surrounded by a more or less opaque zone; in the later evolution the osteoid-osteoma tends to become calcified and ossified with a dense nidus.

Pathologically it is of small size but incites the tissue around it to an extensive reactive formation of new bone. It is thought that the initial phase is a proliferation of the local bone-forming mesenchyme and particularly the osteoblasts. Later there is considerable intercellular substance between the osteoblasts which calcifies slowly into hypercalcified bone. Thus when fully evolved the lesion is composed of compacted trabeculae of atypical bone with intratrabecular vascular tissue. The tissues surrounding the osteoid-osteoma show a perifocal sclerosis. The etiology of the condition is given as a benign tumor. An inflammatory basis for the condition is ruled out because microscopically no evidence of past or present infection

can be detected, cultures are sterile and also in the healing of osteomyelitis cavities there is no calcifying osteoid formed. Also the idea that it may arise from an "embryonic rest" is discarded because these do not give rise to symptoms and also most "rests" are cartilage and osteoid-osteoma is bone.

The differential diagnosis is usually from osteomyelitis with sequestrum, abscess or sclerosis and is usually done by clinical history, radiologically and by microscopic examination. Treatment recommended is bloc excision of the osteoid-osteoma and some of the surrounding bone. If in an inaccessible site for excision adequate curettement should be done.

**Eosinophilic granuloma** is a benign destructive lesion of bone without clinical or roentgenographic evidence of visceral disease. It presumably represents a variant of a basic disease process which clinically has been called Hand-Schuller-Christian disease or Letterer-Siwe disease. Highest incidence is in the first 10 years of life. The lesions may be single or multiple. The presenting symptoms are usually pain and swelling. No history of antecedent infection or trauma is usually available.

Radiologically there is a punched out defect in the bone, the cortex is not expanded, and there are minimal reactive changes in the surrounding bone. The lesions develop rapidly, but heal quick after roentgenotherapy. There is blood eosinophilia from 4-10%. All other blood, urine and culture tests are negative.

Pathologically the early lesion consists of areas of bone destruction infiltrated by markedly phagocytic eosinophiles and large mononuclear cells. Large collections of myelocytes are frequently gathered around the monocytes. In the later stages eosinophiles disappear, many vacuolated mononuclear cells appear, and fibroblastic ingrowth is evident. Still later the mononuclear cells become lipophages, these are gradually crowded out by connective tissue which eventually becomes converted into bone.

In differential diagnosis tuberculosis is ruled out by culture and tuberculin tests, syphilis by Wasserman reaction, osteomyelitis and giant cell tumor by histology on biopsy, multiple myeloma by Bence-Jones protein, Ewings tumor on X-ray evidence of considerable sub-periosteal new bone formation. When lesions are multiple, metastases from a neuroblastoma, leukemia and osteitis fibrosa cystica are ruled out by biopsy. The treatment is radiation or curettage.

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## ANAESTHESIOLOGY

Edited by R. G. Whitehead, M.D.

### Notes on Treatment With Novocaine

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These few notes are on novocaine as used at the present time in the treatment of various surgical and medical disorders.

Novocaine was first synthesized by Einhorn in 1905. In 1909 Bier used novocaine intravenously and in 1912 Goyanes used it intra-arterially. It was not until 1935, when Leriche and Fontaine advocated the use of intravenous novocaine for the treatment of arteritis obliterans that the present day therapeutic methods were developed. His work was followed, in 1935, by a report from Lewy who attempted, though not always successfully, to treat tinnitus aurium. In 1940 Lundy used intravenous novocaine in 0.1% solutions as treatment for the itching of jaundice. His publication was followed in 1943 by R. A. Gordon's report of its use in the dressing of burns; and by McLachlin's report in 1944 for its use in the relief of post-operative pain. These three reports stimulated the use of intravenous novocaine in a wide variety of diseases by numerous other investigators.

Novocaine affects all living tissues but its effect on traumatized, inflamed and edematous tissues is seven to eight times that on normal tissues. Its main action seems to be on the nerve fibres particularly those fibres having to do with sensation. It has a curare-like action on the myoneural junctions by reducing the amount of acetylcholine produced and by depressing the acetylcholine liberated. It seems to potentiate the responses of sympathetically innervated organs to epinephrine, sympathin and sympathetic nerve stimulation.

Novocaine, like other local anaesthetic agents, is destroyed in the liver. Small amounts of it are excreted by the kidneys. Richards has shown that depletion of Vitamin C results in a rapid and marked increase in sensitivity to the convulsant action of novocaine in guinea pigs. He also showed that the effect of starvation is similar. By giving glucose and Vitamin C to such animals the sensitivity of such animals could be reduced.

The accepted dosage of novocaine to be used intravenously is 4 mgms novocaine/kilogram of body weight in twenty minutes used as a 0.1% solution. The novocaine is used in solution with N Saline, 5% Dextrose in dist. water or in Amigen as required by the patient. The solutions when being made up must be agitated vigorously to eliminate any variation in the strength of the solution. All patients must be tested for sensitivity to the drug before using it as treatment. A patient may be tested by injecting a drop of the solution

to be used intradermally and waiting for fifteen minutes before judging the reaction of the patient. One gram of Vitamin C should be added to each litre of solution to be used.

When the intravenous therapy is started the patient should be observed closely. Most patients have a feeling of warmth accompanied by comfortable relaxation. There may be a flush except for circumoral pallor accompanied by dilatation of the pupils and lacrimation. Larger dosages, that is increasing the strength of the solution, or increasing the rate of flow of the solution, may result in a feeling of apprehension dizziness, mental confusion, slurred speech and unconsciousness. Allen et al have made use of this latter fact to facilitate the delivery of the pregnant woman. If this larger dosage is continued or increased there is an abrupt fall in blood pressure from vasodilatation and cardiac depression together with respiratory paralysis of central origin.

Soluble barbiturates prevent excitement and convulsions but fail to protect against fatal respiratory and circulatory depression from too large doses. It has been shown that ephedrine is antagonistic to novocaine in its effects on the respiratory centre in the medulla. In this connection it is interesting to note that the analgesic, hypnotic and relaxing action of pentothal and curare mixtures is reduced by intravenous novocaine. The following case from the writer's files illustrates the effectiveness of the use of barbiturates.

Mr. D., age 62 years, was operated on for duodenal ulcer. A gastrectomy was performed and ten days later the patient developed an extremely irritating generalized itch with no visible rash. At the end of forty-eight hours he was given 1000 cc. of 0.1% novocaine in 5% Dext. and saline. The patient had had intensive Vitamin C therapy and fairly heavy sedation with barbiturates in the course of his surgical treatment so none was given at the time of the novocaine therapy. His skin test was negative. After 400 cc. of the solution had been run in, the patient complained of dizziness and the rate of injection was consequently slowed. There was relief from the intolerable itching within forty-five minutes, which effect lasted for two hours following the end of the injection. For a further four hours the patient was more comfortable than he had been previously and was able to rest more comfortably than before. At this point he suffered from a ruptured operative wound and was removed to the operating room for resuture. Upon return to the ward he again became acutely uncomfortable with the itching and a second infusion of the same quantity and strength of



novocaine solution was started. On this occasion the infusion was preceded by Seconal grs. 1ss given one-half hour previously. There was no complaint of dizziness. The treatment was repeated daily for two days at the end of which time the patient was cured of his itching. However, on the third day another 1000 cc. was given omitting the barbiturate. On this occasion the patient again complained of dizziness. The fourth injection was given on the evening following again without any barbiturate and again the patient complained of dizziness until the rate was slowed. The last two treatments were given to replace morphine as a night sedative and were very effective for this purpose in this patient.

In addition to the use of novocaine intravenously as in the above case it has been used by a number of investigators to relieve the itching that accompanies jaundice and in pruritis ani. In three cases of jaundice who were admitted to hospital the day previous to operation I have given intravenous novocaine in addition to the usual h.s. sedative. All three patients were relieved sufficiently to obtain a good night's sleep prior to operation. In a further four patients who were not operated on immediately it was found that relief could be obtained for from two to eight hours only. One patient with pruritis ani was cured with only one treatment. Unfortunately I have not had the opportunity to see other patients with this complaint. In this connection I unwittingly was able to relieve a patient of pruritis, but not cure her, while trying to cure a painful back due to secondary carcinoma. The treatment in this case gave the patient relief from her pain on an average of three hours in a series of seven injections.

It is the considered opinion of many people using this form of treatment that its use in patients with cancer is effective only as a substitute for morphine. The duration of action in these patients in my experience has not been much longer than could be expected from an adequate dose of morphine. It is my impression, however, that the patient is more relaxed with the use of the novocaine.

In post-operative patients the effectiveness of novocaine is much greater. In a series of sixteen patients who received intravenous novocaine at the end of the operation, ten had only one dose of morphine in the first forty-eight hours, four had two doses of morphine in the first forty-eight hours, and two had four doses each in the same period. It is interesting to note that the relatives of the last two patients never left the hospital during this period. All these cases were major bowel or gastric resections. In six further cases of intervertebral discs treated in the same way the patients had no leg or back pain during the first day post-operation. All the above twenty patients

had had a previous operation and were chosen because of that fact. Thirteen of them volunteered the information that they had more rest immediately following operation than they had had on previous occasions.

The use of intravenous novocaine in the dressing and treating of burn cases is one of the most dramatic. This was very well illustrated in the case of a female patient who was admitted with extensive second degree burns of the back, thighs, abdomen and one arm. On first admission she was dressed and treated for her burns while intravenous morphine was used. This was accompanied by a 0.1% Pentothal drip which was only allowed to drip rapidly enough to keep the patient drowsy but not asleep. Upon the occasions of the second dressing, at which time there was considerable sepsis present she was given intravenous novocaine in a 0.1% solution. She was extremely comfortable and took a great interest in the proceedings. In three hours from the time of the end of the injection she was again very unhappy and uninterested in her surroundings. With this comfort in mind it was decided to give her a small injection, 300 cc. three times a day until such time as her condition improved. This lasted for four days after which time she only received the novocaine on the occasion of a change of dressings. This patient has since been in hospital on five occasions for plastic surgery. On the first two occasions she was given morphine as a sedative following the operation. On the third and subsequent occasions she was given intravenous novocaine at her own request instead of the morphine. There seemed to be no difference in the abolition of the pain but she said she felt more comfortable.

In contrast to the above case a colleague of mine administered intravenous novocaine to a very similar burn case in a young man. For the actual changing of the dressing there was the same result. In the ward, however, this patient complained that the novocaine did not abolish the pain and required morphine at frequent intervals.

There is no doubt, however, that in spite of this one case, there is a definite place for the use of intravenous novocaine not only in the performance of dressings but in the sedation of the patient. I have unfortunately not had any burn cases to deal with.

Graubard and Peterson have reported a series of 224 patients who were given a total of 590 infusions. These were all traumatic cases. They are of the opinion that in fracture cases there is relief of pain, diminished edema, and earlier movement. This was also true in their series of cases of post-dislocation arthralgia, and sprains. They also reported the relief of pain and earlier mobility in cases of myofascitis, but warn that the treatment is more effective in low back pain than in upper back pain which responds better to local

injection. They also state that painful conditions of the arm or shoulder girdle respond better to local injection or block than to intravenous novocaine.

State and Wangenstein have reported the use of intravenous novocaine in the treatment of both immediate and delayed serum sickness. They obtained relief of the symptoms, including tetany, and cure of the condition with one or more infusions depending on the patient's response.

Other investigators have reported the use with success in the treatment of vaso-spastic conditions such as Raynauds disease, Beurgers disease, arteriosclerosis with vaso-spasm, angina pectoris, thrombophlebitis. Three cases of angina pectoris have not obtained any relief with the treatment that I had given them daily for seven, ten and twelve days respectively. These cases were not in constant pain. It is reported that if the patient is in constant pain there will be relief during and shortly after the infusion thus allowing the patient to obtain some rest.

I have had four cases of bed sores who had severe pain. These cases were able to obtain sufficient relief during and for a few hours following the infusions that they would co-operate by moving around with the result that the nurses were able to give them more efficient care.

Durieu treated a series of 25 asthmatic patients with daily injections of 5-20 cc. of 1% novocaine. He concluded that acute attacks could be cured in only 50% of these patients provided there was no emphysema or chronic asthma. If there was emphysema and or bronchitis he obtained temporary improvement in only 30% of the cases. Other workers have confirmed the impression that novocaine is rarely useful in the asthmatic patient.

An interesting undiagnosed chest pain was treated as follows. The patient was an ex-army officer aged 52. He had complained of right anterior chest pain for three years. After complete medical, radiological and psychological investigation he was declared fit. However, the patient looked miserable and in addition to his pain he had tenderness of the third and fourth thoracic

spinal nerve areas. A paravertebral block was done taking in the 2nd to the 4th nerves. The patient obtained relief for about eighteen hours during which time he looked much better and was reported to have eaten better meals. The next day he was given 1000 cc. of 0.1% Novocaine in 5% Dext. and H<sub>2</sub>O solution. The relief obtained from this lasted for two days. A second injection gave relief for two more days. This was followed by a series of five infusions given at intervals of five days, each one followed by more prolonged relief. After six injections the patient disappeared and was not seen again for eight months. On his return to hospital he stated he had had no more chest pain and had been feeling perfectly fit in the meantime. He was brought in with a perforated peptic ulcer.

In conclusion it is pointed out that we now have at our command a powerful, and sometimes dangerous drug, which, however, if used in the recommended dosage and in selected cases is extremely useful as an adjunct to other surgical and medical methods of treatment. There is no doubt that with the greater use of this method there will be more patients who can claim to have been ill in greater comfort than heretofore.

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Short-acting Nembutal also has been developed to serve many purposes. In the 473 reports already published on Nembutal, more than 44 clinical uses for the drug have been reviewed. These reports, crystallizing the experience of physicians for more than 18 years, show that adjusted doses of Nembutal can achieve any desired degree of cerebral depression, from mild sedation to deep hypnosis. They show, too, that the dosage required is only about *one-half* that of many other barbiturates. Small dosage means less drug to be inactivated, reduced possibility of "hangover," shorter duration of effect, wide safety margin, and definite economy to the patient. Shown below is a partial list of indications for the use of Nembutal. Perhaps it will suggest new ways for you to employ the drug. Administration is a simple matter, for 11 different Nembutal products are available — all in convenient small-dosage forms. Write for new booklet, "44 Clinical Uses for Nembutal." ABBOTT LABORATORIES LIMITED, Montreal.

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49-62

#### SEDATIVE

**Cardiovascular**  
Hypertension<sup>1</sup>  
Coronary disease<sup>1</sup>  
Angina<sup>1</sup>  
Decompensation  
Peripheral vascular disease

**Endocrine Disturbances**  
Hyperthyroid  
Menopause—female, male

#### Nausea and Vomiting

Functional or organic disease (acute gastrointestinal and emotional)  
X-ray sickness  
Pregnancy  
Motion sickness

#### Gastrointestinal Disorders

Cardiaspasm<sup>2</sup>  
Pylorospasm<sup>2</sup>  
Spasm of biliary tract<sup>2</sup>  
Spasm of colon<sup>2</sup>  
Peptic ulcer<sup>2</sup>  
Colitis<sup>2</sup>  
Biliary dyskinesia

#### Allergic Disorders

Irritability  
To combat stimulation of  
ephedrine alone, etc.<sup>3,1</sup>

#### Irritability Associated

With Infections<sup>4</sup>

#### Restlessness and Irritability With Pain<sup>5,4</sup>

#### Central Nervous System

Paralysis agitans  
Chorea  
Hysteria  
Delirium tremens  
Mania

#### Anticonvulsant

Traumatic  
Tetanus  
Strychnine  
Eclampsia  
Status epilepticus  
Anesthesia

#### HYPNOTIC

Induction of Sleep

#### OBSTETRICAL

Nausea and Vomiting

Eclampsia

Amnesia and Analgesia<sup>6</sup>

#### SURGICAL

Preoperative Sedation

Basal Anesthesia

Postoperative Sedation

#### PEDIATRIC

Sedation for:

Special examinations  
Blood transfusions  
Administration of parenteral fluids  
Reactions to immunization procedures  
Minor surgery

#### Preoperative Sedation

Nembutal alone or  
<sup>1</sup>Glucophylline and Nembutal,  
<sup>2</sup>Nembutal and Belladonna,  
<sup>3</sup>Ephedrine and Nembutal,  
<sup>4</sup>Nembudene,  
<sup>5</sup>Nembutal and A.S.A.,  
<sup>6</sup>with scopolamine or other drugs.



## General Practitioners' Association of Manitoba

### Presidential Address

A. T. Gowron, M.D.

Second Annual Business Meeting of the G.P.A.M., held at the Royal Alexandra Hotel in Winnipeg, September 20, 1949, in conjunction with the Annual Meeting of the M.M.A.

Mr. Chairman, members of the General Practitioners' Association of Manitoba:

It is an honor to address you this evening at this Second Annual Business Meeting of the G.P.A.M. I am the second person to have held the Office of President. This is the only Provincial General Practitioners' Association that has had two presidents because Manitoba led the way for the forming of such associations. I might say at the beginning that as we have led at the start we must see that we continue to lead.

What success we have had this year is not mine alone but of those who have assisted me, for only by conscientious fulfillment of our respective duties and through individual initiative, can anything worthwhile be done by this Association.

Let us look back over our history. We were born in the fall of 1947 as a result of conditions which threatened us as a body. The major problems at the time were the possibility of being excluded from hospitals, and what we regarded as discrimination in the Manitoba Medical Services fee schedule. So you see, Ladies and Gentlemen, that we must be grateful to the M.M.S. if, for no other reason, than that it was the Father of our organization. Early in 1948 the General Practitioners' Association of Manitoba was formed at a special meeting. This meeting was well attended and a great deal of enthusiasm was shown in the formation of a General Practitioners' Group. Later on a slate of officers was nominated and elected, several committees were appointed and a name chosen, and so came into being the first organization of General Practitioners in Canada. Our initiative led G.P.s in other provinces to consider their own positions and the National Association (C.M.A.) recognized our importance by forming a steering committee which was to study and report on the formation of a Section of General Practice of the C.M.A. Three of our members attended this meeting in June, 1948. About the same time one of our members attended a meeting of the slightly older American Academy of General Practice. These men gathered information that we found useful. So much for past history.

I will not apologize for repeating the aims and objects then set forth.

These were:

1. To guard the rights of the public so that the service of the general practitioner or family doctor will not disappear.

2. To guard the rights of the G.P. so that the high standard of service will be maintained.

3. To work in co-operation and harmony with all organizations of the medical profession. Although in the beginning there was a desire to establish ourselves as an independent group, we later realized the necessity of working within the M.M.A. Therefore we requested and were later granted admission as a Section of the Manitoba Medical Association.

The accomplishments of the first year of our existence were these:

1. We founded the General Practitioners' Association of Manitoba.

2. We began our successful attack on the Manitoba Medical Services fee schedule.

3. The Educational and Scientific Committee did excellent work by informing us of what was being done elsewhere.

4. During that year there were many meetings which were chiefly characterized by dwindling attendance and evaporating enthusiasm.

5. The Annual Dinner and Dance was greatly enjoyed by all who attended, mostly specialists, and if it hadn't been for them we would have suffered an even greater financial loss.

6. A second disappointment was the rather poor attendance at the Annual Business Session of our Association.

7. And the third was the proportionately worse attendance at the Business Session of the M.M.A.

We now come to the second year of our existence. The first meeting of the new executive was held in December, 1948, and was attended by 8 out of 11 members. Certain policies were formulated and certain recommendations put forth. It was decided that:

1. The executive would hold regular monthly meetings (actually 8 regular meetings and 3 special meetings were held).

2. That general meetings would only be called when some matter of great importance had to be discussed.

3. That there should be established a close contact with other G.P. organizations.

4. Representatives were appointed to address District Society meetings.

The accomplishments of the past year include:

1. Alterations in the M.M.S. fee schedule. I am still not satisfied with the schedule as it stands but we have made an opening that can be enlarged later on.

2. Recognition of our Association by the Winnipeg Medical Society when we were asked to take over one of their meetings. We hope that the Winnipeg Medical Society will again reserve one

meeting for G.P. speakers and the executive and I hope that the General Practitioners will make an effort to put on an attractive programme.

3. The record of attendance at the executive meetings was reasonably good with considerable room for improvement.

4. During the year the Annual Dues were increased from Two to Five Dollars.

5. A new special committee, the Tariff Committee, was appointed. It is the duty of this committee to study fee schedules, to receive any complaints or suggestions from the members of the Association and when considered necessary, to discuss them with the permanent fee committee of the M.M.A.

6. The Annual Dinner and Dance was successful both socially and financially. This could very easily be made one of the outstanding medical social events of the year.

7. The constitution has been revised. One of the disappointments was the failure of all but two District Societies to elect representatives to the Association.

Now turning from the local scene to the Dominion as a whole you may be interested in knowing what is going on elsewhere. Following our lead the Ontario General Practitioners organized themselves in 1948. The Ontario G.P. group has made phenomenal progress and are setting the pace for the re-establishment of the General Practitioner into his proper place in organized medicine. They have a number of hard workers devoted to their cause who are mainly responsible for the progress they have made. Remembering the fact that we are the parent organization of all other Provincial Organizations we should do everything possible to maintain our leadership. Similar organizations have come into being in British Columbia and Alberta and others are being formed in Quebec and several of the Maritime Provinces. I suggest that the incoming executive pay very close attention to what is being done by these Provincial bodies. The General Council of the C.M.A. realizing the importance of the G.P. in medicine has established a new Section of General Practice. Our close contact with this body is essential particularly in view of the fact that in the future Sectional meetings in General Practice will be a feature of all C.M.A. meetings. I do not need to tell you of the great organization and the almost unheard of development of the American Academy of General Practice as this has already been so well done by their representative, Dr. Bryner, earlier today.

And now having talked about the Past and Present let me say a few words about the Future. In what ways can we help make our association a success? First of all the incoming executive must have the enthusiastic and unselfish support of every General Practitioner in this City. That means

that every G.P. must feel the responsibility of making his association work well. No one man or group of two or three men or half a dozen can do the job for you. Having taken the leadership we should strive to maintain that leadership.

I think that a regular monthly Bulletin or News Letter should be published to keep all members of the Association in the Province informed of the activities of the G.P.A. and also of the activities of similar organizations in Canada and the United States. The ideal medium in which to publish this information would be in our own Manitoba Medical Review. I believe that a permanent chairman or Secretary would be of great value. He would provide a means of continuity. Practitioners themselves should undertake more medical writing and should take a more active part in scientific programmes at Provincial and District Society meetings or at Hospital Luncheons. A movement should be started to gain admission of G.P.'s to hospital staffs and to teaching positions. After all how can a G.P. be taught better than by General Practitioners.

Perhaps if a G.P. had a larger . . . say in teaching, there might be a greater tendency for students to think of a career in General Practice instead of a specialty. Our Public Relations Committee could do work to advance our own M.M.S. plan as a means of defeating state medicine because it is already established and could form the basis of any National plan provided that the public was well informed. You will recall that the second item in our Aims and Objects was to "Guard the rights of the G.P. so that the high standard of service will be maintained." In order to maintain a high standard of service there must be systematic study. Courses are being conducted for G.P.'s in many hospitals and medical schools both in Canada and the United States. Post-graduate study in such institutions should be necessary as a qualification for admission to this Association. The A.A.G.P. has very strict requirements for membership. (These are: "To be eligible for membership a candidate must be a graduate of an approved medical school, a member of his county medical society, licensed to practice medicine and surgery in the state of his residence, of high moral and ethical character. He must have shown interest in continuing his medical advancement by engaging in post-graduate education." A candidate has to have 3 years in general practice before he can be a member and to retain his membership in the Academy, which normally ends after 3 years, he "must have spent a minimum of 150 hours, during this 3-year period, in post-graduate training of a nature acceptable to the membership committee. Post-graduate educational activities include attendance at hospital staff meetings, county, state and national society meetings, refresher courses and

formal courses or rotating residencies conducted by approved institutions.") Unless we adopt a similar procedure our Association is likely to be ranked as second rate. I think it would be a good idea if we were to become affiliated with the A.A.G.P. but they are not likely to accept us unless our standards meet theirs.

The General Practitioner has always been the backbone of medical practice and has been capable of looking after 85% of the needs of the people. During the past decade he has found himself competing with the Specialist. In the future he is threatened with competition by the State. State medicine in some form is as certain as tomorrow. Even if we wanted to we could not prevent it. The thing we must do is to mould it to a form that will enable us to serve our patients as Family Doctors and not as servants of the State. This is not a matter for an executive or a half dozen executives but a matter for every doctor. The General Practitioners still outnumber the specialists everywhere, that is, except in high offices. No

one can look after our own interests better than ourselves but if we don't look after those interests, the others will take over the responsibility with pleasure. Don't let that happen. Your safest way is to take this Association seriously. Keep informed on the questions of the day. Back up your executive by taking part in meetings and be ready to take office or responsibility even if you would rather not. This association is every man's job.

In conclusion, I wish to thank the members of the Executive for their help and encouragement. I want also to thank M.M.A. and particularly Dr. Macfarland for their assistance throughout the year. Especially I want to thank the members of this association who elected me to this important office. I regard it as a great honor which I have striven to deserve. My interest in the Association will not cease when I retire for now that I have a better understanding of the problems that face us, I am more than ever anxious to assist in their solution.

### 35th Annual Meeting of the Radiological Society of North America

Malignant tumors, their diagnosis and treatment, will be the theme of the 35th annual meeting of the Radiological Society of North America to be held in Cleveland, Ohio, from December 4 to 9.

Attendance will reach the 2,000 figure as doctors, scientists and specialists convene to discuss "the 1949 answer to the cancer problem," according to Dr. Edgar P. McNamee, Society President and resident of Cleveland.

The meeting with 11 major symposia, 37 refresher courses, a tumor conference and several special sessions, will be a "post graduate course" in cancer. It will be held in Cleveland's Public Auditorium. A total of 70 scientific and technical papers are to be presented.

Scientific and commercial exhibits will be displayed in the large hall of the Auditorium. More space "than ever before" is being allotted to the exhibits because of the commodious facilities of the Auditorium says Dr. Harry Hauser of Cleveland, Chairman of the local Executive Committee on arrangements.

Convention headquarters for the Society will be in Hotel Statler.

Among the many leaders appearing on the programme are such well-known personalities as: Dr. John D. Camp, Associate Professor of Radiology, the Mayo Foundation, Rochester, Minn.; Dr. Cushman D. Haagenon, Associate Professor of Clinical Surgery, Columbia University, New York; Dr. Ralph Jones, University of Pennsylvania, Phila-

delphia; Dr. Chevalier W. Jackson, Professor of Laryngology and Bronchoscopy, Temple University, Philadelphia; Dr. Robert R. Newell, Professor of Radiology, Stanford University, San Francisco, and Dr. George E. Moore, Milwaukee.

Others are Dr. Alan R. Moritz, Professor of Pathology, Western Reserve University; Dr. U. V. Portman, Cleveland Clinic and President, American Roentgen Ray Society; Dr. Merrill C. Sosman, Professor of Radiology, Harvard University, Cambridge, Massachusetts, and Dr. Shields Warren, Professor of Pathology, also from Harvard University.

National officers of the Radiological Society of North America are Dr. Edgar P. McNamee, Cleveland, President; Dr. Warren W. Furey, Chicago, President-elect; Dr. Laurence L. Robbins, Boston, 1st Vice-President; Dr. Earl R. Miller, San Francisco, 2nd Vice-President; Dr. James M. Collins, Indianapolis, 3rd Vice-President, and Dr. Donald S. Childs, Syracuse, Secretary-Treasurer.

President McNamee serves also as Chairman of the Programme Committee. Assisting him on this committee are: Dr. John D. Camp, Rochester, Minn.; Dr. Earl R. Miller, San Francisco, Calif.; Dr. Barton R. Young, Philadelphia; Dr. C. Edgar Virden, Kansas City, Mo.; Dr. Clarence E. Hufford, Toledo, Ohio, and Dr. Donald S. Childs.

"All sessions and meetings of the scientific programme and the scientific and commercial exhibits are open to the medical profession," states Dr. McNamee. The programme is, in his opinion, one that will substantially aid in the development of the movement for cancer control. It is designed to



stimulate more interest and knowledge among all branches of medicine including the field of general practice.

Major subjects on the five-day program are:

#### Monday, December 5

##### Opening Session—10.15 a.m.

"New Developments in the Cancer Field." Dr. Shields Warren, Boston.

##### Diagnostic Session—2 p.m.

"Symposium on Cancer of the Stomach." Six papers. Dr. Fred J. Hodges, Ann Arbor, Michigan, Chairman.

##### Therapy Session—2 p.m.

"Symposium on the Treatment of Cancer of the Breast." Four papers. Dr. Harold W. Jacox, New York, Chairman.

#### Tuesday, December 6

##### General Session—10.15 and 11.20 a.m.

"Symposium on Roentgenologic Diagnostic Procedures in the Diagnosis of Tumors of the large and Small Intestine." Four papers. Dr. Robert D. Moreton, Temple, Texas, Chairman.

"Symposium on Intrathoracic Tumors." Two papers. Dr. Laurence L. Robbins, Boston, Chairman.

##### Diagnostic Session—2 p.m.

"Symposium on Intrathoracic Tumors." Continued. Five papers.

##### Therapy Session—2 p.m.

"Symposium on Epidermoid Carcinoma of the Upper Mucous Membrane Tract." Seven papers. Dr. Douglas Quick, New York.

##### Carman Lecture—8 p.m.

"Contrast Myelography, Past and Present." Dr. John D. Camp, Rochester, Minn.

#### Wednesday, December 7

##### General Session—10.15 a.m.

"Symposium on Bone Tumors." Five papers. Dr. Aubrey O. Hampton, Washington, D.C.

##### Diagnostic Session—2 p.m.

"Symposium on Pediatric Roentgenology." Five papers. Dr. Edward B. D. Newhauser, Boston, Chairman.

##### Therapy Session—2 p.m.

Tumor Conference. Dr. Eugene P. Pendergrass, Philadelphia, Moderator.

#### Thursday, December 8

##### General Session—10.15 a.m.

"Symposium on Tumors of the Urinary Tract." Two papers. Dr. Paul C. Swenson, Philadelphia, Chairman.

##### Diagnostic Session—2 p.m.

"Symposium on Diseases and Tumors of the Skull and Brain." Six papers. Dr. Merrill C. Sosman, Boston, Chairman.

##### Therapy Session—2 p.m.

"Symposium on Cancer of the Cervix Uteri." Six papers. Dr. Axel N. Arneson, St. Louis, Chairman.

Banquet and Presentation of gold medals of the Radiological Society of North America—7 p.m.

#### Friday, December 9

##### General Session—10.15 a.m. and 1.30 p.m.

"New Trends in Radiology Correlated with Research in Other Scientific Fields." Eleven papers. Dr. Richard H. Chamberlain, Philadelphia, Chairman.

The convention unofficially opens Sunday, December 3, with the presenting of the first two Refresher Courses, one in Therapy Information at 3 p.m.; the other, a Film-Reading session at 7. Neither course is in conflict with any other session of the convention. Seven refresher courses daily will be offered thereafter.

Heading local Cleveland committees arranging details for the meeting are Doctors John O. Newton, General Entertainment; Don D. Brannan, Registration and Housing; George R. Krause, Commercial Exhibits; Carroll C. Dundon, Refresher Courses and Publicity; George L. Sackett, Scientific Sessions; John D. Osmond, Jr., Scientific Exhibits; and Ursus V. Portman, Hospitality. Mrs. George L. Sackett heads the Women's Activities.

Information concerning the convention can be obtained from Dr. Donald S. Childs, Secretary-Treasurer, 713 East Genesee Street, Syracuse 2, New York.

#### Orthoptic Clinic Re-Opened

The Orthoptic Clinic at the Children's Hospital has been re-opened with Mrs. Dorothy Gregory, nee Dorothy Williams, as Orthoptic in charge. A limited number of referred cases for diagnostic check and treatment will be accepted. Appointments may be made by phoning Mrs. Gregory.

## Sixty Years Ago and After

H. M. Speechly, M.R.C.S. (Eng.), L.R.C.P. (London), L.L.D. (Man.)

When I was 13 years old I badly wanted to go to Dartmouth, the Training School for midshipmen, and become a sailor; but being the son of a poor parson and a missionary in India at that, my naval ambition was crushed, because the parental funds could not stand for it. And so my future remained obscure till in my 18th year, in the spring of 1884, my Father took me away from my beloved school, Monkton Combe, near Bath in Somersetshire, and deprived me of the opportunity of getting into the first xi at cricket! My education had been all on the classical side and my father had a strong leaning towards putting me into Law—was not my barrister uncle Registrar of the City of London Court? The argument was logical from his point of view, but I loathed the idea of a stuffy London office, being very rurally minded. Well, what did I want to be? My choice was "either a doctor or a farmer"; and rather to my surprise my father decided in favour of Medicine. Now one of my father's clergy in India was married to a Miss Treves, who in conversation with my mother had often quite naturally boasted of her brilliant doctor brother at the London Hospital in East London, Mr. Frederick Treves, who was one of the up and coming surgeons on the staff of the biggest hospital in London—the London Hospital on Mile End Road in Whitechapel, one mile east of the Bank of England, and known in medical circles as "The London" with a capacity then of 800 beds. So my father called on Mr. Frederick Treves, F.R.C.S., Eng., to get his advice as to my entering at the London and arranged that I should go to the hospital on a certain date at mid-day to be interviewed and shown over the hospital and medical college by the great man. On the day appointed, as the clock struck twelve, I was duly ushered into the staff room by the hospital porter, Stacey, a short red-whiskered man with gold-laced official frock-coat. And so not a little scared I stood before Mr. Frederick Treves, later as I soon learned, known to all students as "Freddie," much admired and respected. He was a strongly built man of middle height, age 32 only, very young for a senior staff surgeon, keen bespectacled eyes, strong facial profile, and clean shaven except for a dark full moustache. "You are very punctual, young man," quoth he, shook hands, and showed me round the wards. I had reason to believe that my father rather hoped I would be put off by whatever I saw, but neither in the hospital nor in the dissecting room—I had never seen dead bodies before—were my nerves shocked. In the museum, however, the objects that jarred on

my feelings were the bottled anencephalous foetus specimens—they still do!

My mentor took me to see the Warden of the College, a rather formidable-looking bearded expurger in the Navy, Munro Scott by name, who gave me some necessary papers and information. I returned home rather elated at having come through such an ordeal and full of visions of the future. It is rather an odd thing in my life that whether in school or college, in commencing practice in England, or later in Manitoba, I have always encountered and shared in a changing order of things. At school it was in matters of discipline and reorganization; at Medical College—all the big voluntary hospitals in London have their own school—it was exactly the same only more intense, because owing to the influence of Treves and others the whole discipline and structure of the teaching arrangements and of the buildings themselves had just begun to alter in accordance with the impetus given by Lister's teaching and the new conception of bacteriology.

The fall term began on October 1st. Two entrance scholarships were offered, the Science and Arts, but as I had never received any Science training at school, I spent the summer in coaching for the Arts scholarship. The Science scholarships were worth £60 and £40, but the Arts only £40 and £20. W. Soltau Fenwick, afterwards a specialist in Gastrology, won the first Science, and J. H. Sequeira, now a well known dermatologist, got the second; I took the first Arts, and Probyn Williams, later an Anaesthetic specialist, was second. An unfortunate delay, due to some family circumstances, caused me to be late in getting in on the Anatomy class in October, with the result that I, green as grass on such an adventure as anatomical dissection, had to begin on an abdomen, a tough fate for such a one as I! It was puzzling to be told by the Prosecutor, "Reflect the skin," a new application to me of the verb "to reflect." However, by watching others and heeding a few friendly hints, these strange things became commonplace in due course. Owing to the re-building of the college we had to dissect in a roofless dissecting room without heat and properly cold it was to hands and feet. All students had to dissect for the first two years from October to April. We were under the control of the demonstrator of anatomy, who was already an M.S. and F.R.C.S., under whom two prosecutors were in charge of the actual dissectors guiding and advising them, but they were often third and fourth year men who were reading for advanced surgical degrees. Bodies

were not particularly hard to get. The price of your part was 12s. 6d., say three dollars.

The second year test exam. of the Royal College of Surgeons had just been abolished to make way for the regulations of the Conjoint Board of the College of Surgeons and the College of Physicians, two separate bodies except for examination purposes. Each hospital then improved its discipline and arrangements to stop loafing and keep slackers up to the mark. In the basement of our college was a kind of cellar known as "the smoke hole," where you might meet the slacker type, skilled at cards and given to boozy ways, whose entrance to college might be anything from six to ten years previously. This was partly the result of not providing a club room for students. As an alternative there was a "pub" across the street known as "the Good Sam," an abbreviation for the title of the Good Samaritan, the only one of its name in England, I believe. I never entered the precincts of this travesty of true hospitality, though I have had a fair acquaintance with the London pubs. One haunter of Smoke Hole known as "Goblimey Burns," figured unfavourably in a football match on Blackheath. We changed at a certain pub, and as I was wont, I put my watch and purse in my bag in charge of the landlord. A few of the team did the same. Much against our will we had to ask Burns to referee *faute de mieux*. He did—for the first period, and then retired ostensibly for a drink or drinks, but requiring money he cleaned out the pockets of both sides in order to pay for the drinks! My bag happily was in safe hands.

However, with the re-building of the college a better day dawned with the addition of a fine library and the student club-room, so that conditions were vastly more civilized than under the old regime. The day began with a lecture from 9 a.m. for an hour; then followed two hours of dissection, interrupted by an hour for lunch and then another two hours for dissection or longer if there was no afternoon lecture. We had three outstanding lecturers in Frederick Treves on Anatomy, and Jeremiah McCarthy, an Irishman, patriarchally bearded, on Physiology, and the volatile, very theatrical Meymott Tidy on Chemistry. Treves lectured with concise clarity, illustrated by beautiful diagrams on the blackboard, which compelled complete discipline and attention. McCarthy held his hearers to instructed and delighted attention by his witty artistic unfolding of the mysteries of Physiology. Tidy, however, rejoiced in creating a somewhat rollicking audience with a jocularly which often produced gales of laughter without lapse of discipline. How different was the lecturer on *Materia Medica*, prematurely aged, myopic, and crippled with rheumatoid arthritis. He read monotonously from an

ancient manuscript while all sorts of fun were going on up and down the theatre. A year or two later we had to put up with very dull lectures on Surgery by Rivington and Diseases of Women by Herman, somewhat old stagers with no gift for imparting knowledge.

In 1884 the Volunteer Medical Staff Corps, the first volunteer O.T.C., was organized in London, each hospital forming its own Company of students officered by staff doctors. I joined up at once. We had dark blue uniforms with red pipings, and wore pill-box caps like cavalry; to our white belts were attached short swords with scabbard, but these were only for saluting purposes and had no surgical significance; and when in full dress we wore helmets instead of caps. The idea was to give the men a taste for joining the R.A.M.C. after qualifying and thus to equip them with a knowledge of drill, but I do not remember many men being thus attracted to the Army Medical Service. In addition to drills and forming guards of honour we got regular training. When the Medical College was re-opened in 1886 by the Prince and Princess of Wales I served on the Guard of Honour, and when in 1887 Queen Victoria reviewed 25,000 troops in the Long Valley of Aldershot we stretcher-bearers were 31 hours on duty. In 1887 and 1888 I took the annual week's training at Aldershot given to the V.M.S.C. by the War Office, a very worth-while though too short spell, of which the only hardship was sleeping on the ground with only a rubber sheet intervening.

With regard to sport and cultural clubs amongst students there were isolated units when I joined up, but in 1885 a Student Club Union was consummated after much argument. It was finally decided that the annual subscription should be one guinea per student, but that there should be no compulsion. It was correctly anticipated that practically every student would voluntarily become a member whatever his sporting or intellectual activities and whatever his year. It proved also a mixing agency for juniors with seniors. Of course there was always a distinct line between the first and second years men when you were definitely inferior in status, and the "Housemen," who were superior beings carrying stethoscopes of the bin-aural type which had only recently superseded the old wooden type of Laënnec parentage. Curiously enough during your first winter you had to do six months outpatient surgical dressing. The urologist, Mr. E. Hurry Fenwick, best dressed and handsomest of the Asst. Staff Surgeons, was the surgeon in charge of my group. He was also one of the up-and-coming followers of Listerian principles. I had never done a minor operation in my life, of course. So imagine my acute mental condition when Mr. Fenwick, after describing how



to remove an ingrowing toe-nail, pitched on me to remove the big toe-nail of a girl of about 18—and with the critical eyes of the rest of the class looking on! Moreover, it was to be done without any local anaesthetic. However, it was done according to instructions, successfully, and the girl never uttered even a groan—she was a heroine! Bacteriology was not taught as a subject, but Mr. Jeremiah McCarthy (“Jerry Mac” to the student(s), though a Senior Staff Surgeon, actually ran a Primary Pathological class with the use of microscopical specimens! Bio-chemistry was an unknown art. Instruction in Pharmacy was but a flimsy course, especially as most men (myself an exception) had the remains of the old apprenticeship or of family medical connections to reinforce their knowledge of drugs. I have in mind a very pleasant Welshman, Owen Meredith Jones, who had served the old statutory apprenticeship with a medical man in practice which preceded entry into a Medical School up to about 1880. Thus he was a bit older than most of us, had done a lot of dispensing and knew plenty of minor surgery and midwifery. He was chosen H.S. as soon as he qualified, went into the Royal Navy, and happened to be off Chile and Peru when they had their sanguinary scrap at the end of the 19th century. He did a lot of surgery then. When his squadron later went to British Columbia, he resigned his commission to settle in Victoria, B.C., where he enjoyed a large consultant practice until about 1920, when he passed away. I always hoped to see him here in Canada, but never got the chance. Another man who later became a staff physician was Bertie Dawson, who was very scientifically brought up and was in our year; known now all over the British Dominions as Lord Dawson of Penn.

One of my earliest remembrances was the occasion in 1886 when Queen Victoria was to drive past the Hospital to open the People's Palace, a cultural centre. All the students turned out and took the Lodge gates and every point of vantage to cheer Her Majesty when out came the famous Sir Andrew Clark, the senior Staff Physician, who looked after the health of Prime Minister W. E. Gladstone. We gave him a big cheer to acknowledge which he waved his top hat forgetting that it was full of papers! These escaped all over the place—more cheers.

An outstanding figure in those days was the Surgeon Emeritus to the Hôpital, Sir Jonathan Hutchinson, whose rural reputation as an animal doctor was almost as great as his knowledge of both medicine and surgery. Like all our older surgeons he grew a spacious beard below his marked expressive features. Bearded also was Dr. Hughlings Jackson (but it was a short white beard) when I was clinical clerk on his service.

He was very shy and modest although he was much respected as a philosophic neurologist. Over and above his description of the unilateral convulsions known as Jacksonian epilepsy he did much to establish the use of the ophthalmoscope in cerebral diagnosis and the doctrine of levels in the nervous system. Unfortunately, he had a peculiar obscurity of speech which prevented him from ever becoming a public lecturer. One had to listen very closely to his clinical remarks to understand him.

Having passed over all Rubicons in your second year you reached the exalted status of “house man” in your third year. For the two years ensuing you took on the functions of clinical clerk on the medical side, and of surgical dresser, six months at least of each, with periods of similar duties in the out-patients. The really interesting time was when a man was on full duty on either medical or surgical sides, but particularly on the surgical. In my day there were five staff surgeons each with his asst. surgeon and house surgeon with six dressers, each of the five units having 70 to 80 beds. On the other side were five staff physicians, each with his asst. physician and house physician with six clinical clerks, each unit having some 60 beds. The period of full duty shared by each unit lasted 3½ days, but surgical full duty was the most exciting. “Full duty” meant that under your peculiar unit all new admissions for the half-week were taken in with certain exceptions. The greater number of admissions was through the Receiving Room (=Casualty).

Until 1885 the king of the Receiving Room was the house surgeon on full duty. In order to relieve the house surgeon and for greater efficiency in avoiding crowding of the Receiving Room the post of Receiving Room Officer was set up for day work only and was regarded as simply an aid to the house surgeon. The Receiving Room Officer, being a recently qualified man, could only admit with the consent of the house surgeon. Soon it became apparent that the appointment achieved only part of its function, and eventually with senior qualified men full responsibility for admissions was given to the Receiving Room Officers, thus enabling the house surgeons to attend to the newly arrived in-patients without disturbance.

To assist the Receiving Room Officer and to give experience, there were always two surgical dressers on duty who attended to all minor complaints and injuries, and learned how to extract teeth. I was one of the few men who took on the Receiving Room Office for the three months' period as soon as I qualified and again later on, after serving as house physician. As each student had to attend at least 20 confinements and most men attended more, the maternity service under

the resident accoucheur was run on a weekly basis by two men (8 a.m. to 8 p.m.), and two night men who had rooms in the hospital. Business was usually fairly brisk, as there was a huge Jewish population in our area which covered a mile around the hospital. I put in five weeks and bagged 83 cases. We never wore rubber gloves and generally preferred not to wash our hands owing to poor accommodation. Patients were attended by a neighbor, as a rule under most primitive methods, but puerperal fever was unusual. We feared bedbugs more than anything else.

It was optional to attend the Skin Department and only keen men attended. Pathology was a farce, although post-mortem opportunities were abundant: it was common to have from three to six post-mortems most days in the week, but it was only in 1887 that Dr. Percy Kidd completely changed the slack and sloppy ways of his predecessor and really taught pathology scientifically.

Although two large wards, Buxton and Queen Victoria, the one medical and the other surgical, were always full of children up to six years of age, and older children were common in the adult wards, Paediatrics as a subject did not exist; but the wise house physician or house surgeon always took into consideration good hints from Sister Buxton or Sister Queen, who had wide experience of the ever-recurring residents as well as of their small patients. The resident appointments of house physician, house surgeon, and resident accoucheur were made for six months only, but meant grand experience much envied and sought after with relatively limited responsibility. After being Receiving Room Officer and house physician I had the good luck to be house surgeon to Mr. Frederick Treves, then in the height of fame and popularity. The senior staff took ward rounds twice a week from 2 p.m. to 4 p.m., when students and visitors accompanied the surgeon or physician with his house surgeons or physicians and dressers or clerks. Treves always had a tremendous following of from 50 to 70, including many strangers. Operations might take place on any afternoon except Saturday and Sunday, but not in the morning. Emergency operations were covered by the assistant surgeon on duty. It must be remembered that in the 19th century Roentgen's rays were not even dreamed of; rubber gloves were never used; operating was done with bare hands washed in some antiseptic, either carbolic acid solution or perhaps perchloride; and there were none of the present-day meticulous cleansings and swathings of operators and patients. Instruments were not boiled, but were usually dipped in 1 to 20 carbolic solution or some other antiseptic. Only Treves, H. Fenwick and F. S. Eve wore white coats and rubber sleeves. The older men operated in old

frock coats splashed and stained with blood and the various fluid overflows from operations. The Surgery Bedell, as he was called and who had charge of the Operating Theatre, used to tell us that it was only recently that they ceased using the same instruments for post-mortems as for operations, believe it or not! "Did any patients survive operation?" do you ask. Oh, yes, but in that "laudable pus" regime morbidity was much greater than during this century. The only two cases that died during my six months as house surgeon with a prolific operator like Treves were practically moribund at operation, the one being the biggest uterine fibroid I have ever seen, and the other an inguinal hernia of massive proportion extending down to the lower third of the thigh.

Talking of operations, the three commonest items on the day's list were: "Removal of glands from the neck; fistula in ano; and lupus"; and although enlargement of cervical glands were often called "scrofula" and considered "consumptive" in origin, it was by no means certain that the two latter conditions were tubercular. The treatment of lupus by the actual cautery always seemed to me so barbarous, especially when the face of some fair damsel was under that treatment and the theatre was filled with the odour of seared flesh. Later the introduction of what was known as the Finsen Light treatment was adopted, thanks to the generous gift of the late Queen Alexandra. Also when Treves managed to secure for the Elephant Man a haven of rest in Rowsell Ward, she delighted the poor victim of this hideous fibromatosis condition and diabetes by visiting him and giving him her photograph. Remember he was so horribly ugly that he had to have a large cloth mask when he went out at any time, so that he might not scare any feminine observers. We students used to drop in to see him occasionally. I wonder if, when the London Hospital was bombed, the museum which held the mask was destroyed. The Hospital buildings were severely mauled by the 1940 blitz.

Over and above the professional delights of being on full duty when anything might turn up there was one function at midnight which must have mystified waiting patients in the Receiving Room. Nurse after nurse would arrive carrying a bowl with a marked plate on top and deposit it in front of the spacious open fire-place. Before long various residents and dressers would come along, gaze intently on the bowls, and carry off one of them. Each bowl bore a name and contained delicious warm bread and milk! And with this I had better close these reminiscences lest they bore our readers. Nevertheless those were grand and memorable days!

## The History Mediaeval and Modern of Quinine

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One afternoon in 1886 I was following ward rounds with Dr. Samuel Fenwick, a senior staff physician of the London Hospital and the father of a brood of younger medical men of some distinction, to wit, Dr. Bedford Fenwick, gynaecologist; Mr. Harry Fenwick, urologist, and Dr. W. Soltau Fenwick, gastrologist. Dr. Samuel Fenwick, the father, was a genial and urbane physician but possessed of an exceedingly homely facial appearance, causing him to be known by the irreverent students as "the Burglar." All his sons failed to reproduce this facial peculiarity, indeed Harry Fenwick was the best looking of the whole hospital staff. Samuel Fenwick was a North countryman who in his early days, so he told us that afternoon, was apprenticed to a Newcastle practitioner, who one day took a small phial from the shelf containing white crystals and said to him, "Young man, this is a dangerous drug, don't ever give more than a grain of this quinine to a patient." But in 1886 physicians were giving much larger doses in selected cases, not necessarily malarious. That was sixty years ago. How differently things have been shaping between then and now! Until 1939 there was no need for a substitute, because there was enough quinine for the world's supply. Following the Japanese invasion of the Dutch E. Indies in 1942, an end of the world's supplies took place. Then the synthetic chemists who had already produced plasmochin and atebirin were able to fill the gap partially as our M.O.'s in N. Africa, Sicily and Italy well know. Quinine is, of course, the principal alkaloid of cinchona bark.

This paper is based largely on C. J. S. Thompson's article, "The History and Lore of Cinchona" (B.M.J., December, 1928); and on Norman Taylor's "Quinine, the Story of Cinchona" (1943), and the Scientific Monthly of July and August, 1945. Following Thompson I will treat the subject from the point of view of Tradition and empirical knowledge, and then of exact chemistry.

### Empiricism and Tradition

First, then, traditionally the exact date of the discovery of the remedial properties of cinchona bark cannot be stated. One Geoffroy, late in the eighteenth century, was the first narrator of the picturesque story of an Indian lost in a dense Peruvian forest who, stricken with fever, drank eagerly from a pool into which a cinchona tree had fallen; he fell asleep and on waking was cured of his fever. Seemingly even more fabulous is La Condamine's story (1738) that Peruvian natives watched pumas chewing cinchona bark to cure their fevers! Not only were most of the South

American aborigines ignorant of its medicinal virtues, but more significantly still, the medicine bags carried by the native medicine men, whose traditions came from the Incas, never contained cinchona bark. Now Peru was discovered in 1513 and conquered by the Spanish in 1550. The earliest record of the value of the bark comes from Joseph de Jussieu who visited Loka in 1739 and stated that the use of cinchona was first made known to a Jesuit Missionary who suffered from intermittent fever and was cured by an Indian chief at Malacotas, south of Loka in S. Ecuador, about 1600. A similar story is told of Don Lopez de Canivares, Spanish Governor of Loka, whose fever was cured by the bark. Its local name was "quina-quina" which means "bark of barks." It is interesting to note that one Poeppig writing in 1830 says that the people of Huanuca Province in Peru, though often afflicted with ague would rather die than have to use what they considered so dangerous a remedy. Richard Spruce, too, says it was difficult to make the natives of Ecuador and Colombia believe that the red cinchona bark could be used for any purpose other than for dyeing cloth. In 1860-61 he collected seeds for the British Government. Perhaps the first apparently authentic record of the therapeutic value of cinchona is dated 1638 when the wife of Don Luis Geronimo Fernandez de Cabrera Bobadilla of Mendoza, 4th Count of Chinchon and Viceroy of Peru, was stricken with intermittent fever in the Palace of Lima. At the age of 16, this lady was married to a Don who died four years later, but the young widow became a lady-in-waiting to Queen Margaret, wife of Philip III, and married this Count of Chinchon. He was made Viceroy of Peru in 1682. Ten years later the Countess of Chinchon became an ague victim, whereupon the Governor of Loka, himself a beneficiary of the bark treatment, at once sent a packet of the powdered bark to Dr. Juan de Vega, physician to the Countess, with assurance of its efficacy. De Vega gave it to the Countess who made a rapid and complete recovery. According to the Spaniard Hipolito Ruiz, this bark came from the species known as "Cascarilla de Chahuarguera" which abounded in cinchonidine. After her recovery the Countess enthusiastically collected as much of the bark as possible and gave it to her dependants who suffered from fever. Hence people called it **the Countess' powder**. She came back to Spain in the spring of 1640 with a large supply of the bark for distribution among sufferers from tertian fever on her husband's estate where tertian fever was common. Dr. Juan de Vega brought with him a further supply of bark, which, however, he sold at Seville for 100 reals a pound, say six dollars. We next hear of the bark in 1653 when Chifflet, physician to the Archduke Leopold of Austria and Governor of the Low Countries, wrote: "Among the wonders of the day many



reckon the tree growing in the kingdom of Peru called *Lignum Februm* whose virtues chiefly reside in the bark which is known as *China Febris*. During the last few years it has been imported into Spain, and thence sent to the Jesuit, Cardinal Joannes de Lugo at Rome." Oddly enough this Archduke had two attacks of fever in 1652, was treated with bark for two attacks with recovery; and then, on suffering a third attack, he refused to take bark and died. As you might expect, medical opinion was divided—"Oh, yes, it might palliate the fever, but it **'fixed the humour,'** thus causing a relapse, or some other dangerous disease." So sceptical were the doctors of those days.

### From Rome to England

By 1659, round Brussels and Antwerp, according to Dr. Roland Sturm of Louvain, the powdered bark was known as "*pulvis Jesuiticus*," because the Jesuits used to give it to the sick poor free of charge, but charged the rich a heavy price. From stores accumulated in Rome, Sturm states that he "saw twenty doses sent to Paris in 1656 which cost 60 florins (say \$1.25 now) and according to directions issued to the apothecaries of Rome, it was to be given infused in white wine. But the unfortunate result of charging high prices caused many worthless substitutes to be sold by Spanish merchants. Naturally great confusion was caused and accounted for much scepticism amongst medical men. What about England, then in close touch with European developments? About 1658 one of the earliest newspapers, the "*Mercurius Politicus*," appeared and alluded to "The excellent powder known by the name of the Jesuit's Powder brought over by James Thomson, a merchant of Antwerp." This was opportune because in that year an epidemic of intermittent fever raged in England. Brady, professor of Physic at Cambridge, and Willis, the anatomist, note that this powder was coming into daily use. But its general introduction was largely due to a somewhat remarkable character, Robert Talbor, or eventually Talbot, as his surname became altered—perhaps it sounded more distinguished!

### The Strange Story of a Cambridge Sizar

Robert Talbor, or Talbot, was born in 1642, apparently in Cambridge, for after leaving school he was apprenticed to Mr. Dear, a Cambridge apothecary, and called by Gideon Harvey "a debauched Cambridge apprentice." Later he was entered as a sizar at St. John's College for five years, but there is no evidence that he ever graduated. About 1671 he settled in Essex where he said, "I planted myself near the sea-side where agues are the epidemical diseases." Presently he published a little book called "*Pyretologia*, a rational account of the cause and cure of agues,"

in which he refers to a secret remedy for ague consisting of four ingredients "two indigenous and two exotic." Evidently one of these was Peruvian bark because he wrote, "Let me advise the world to beware of palliative cures and especially of that known as Jesuit's Powder as it is given by unskilful hands. Yet this powder is not altogether to be condemned for it is a noble and safe medicine, if rightly prepared and corrected, and administered by a skilful hand; otherwise it is as pernicious a medicine as can be taken."

His reputation grew and he went to London, setting up his sign next door to Gray's Inn Gate in Holborn. Soon he was called to Windsor to see Charles II, whom he cured of intermittent fever, thus securing the royal favour. Now Talbot was not even L.R.C.P., so to save him from the charge that he had no qualification to practise, the King caused a letter to be written to the Royal College of Physicians, restraining that body from interfering! On July 27, 1672, he was appointed Royal physician and later was knighted!

In the *Annals of Medical History* (P 992), Dr. George Dock of St. Louis, Mo., in an amusing discussion of Robert Talbor's meteoric career, throws light on the orthodox medical attitude towards the introduction of cinchona bark into England and states that Richard Lower (1631-91) refused to sanction cinchona treatment in the case of Charles II, while Thos. Sydenham in 1666 published his "*Methodus Curandi Febres*," and described the use of the bark, but did not speak favourably of the drug. In fact, he is compared in medical literature with Talbor to the disadvantage of the latter, although he is said to have owed this knowledge to Talbor. However, Latham says, "What Sydenham gave away, Talbor sold."

In 1678 Sir Robert Talbor, under Privy Seal, was granted an annuity of £100 with the profits and privileges belonging to a Physician-in-ordinary to the Sovereign.

Evelyn, in his diary on August 29, 1679, states that he had "conversed with the Marquis of Normandy concerning the Quinquina which the physicians would not give the King at the time he was in a dangerous ague. It was the only thing that could cure him (out of envy because it had been brought into vogue by Mr. Talbor, an Apothecary) until Mr. Short, to whom the King sent to know his opinion of it privately, sent word to the King that it was the only thing that could save his life, and then the King enjoined the physicians to give it to him, which they did and he recovered."

In 1679 Talbor visited Spain and Paris, where he became so prominent a person that the famous Mdme. de Sevigné alludes to him in several of her letters. In November, 1680, when the Dauphin was seized with an attack of fever, Mdme. de Sevigné

wrote, "The King Louis XIV insisted on Talbor preparing his wine in his presence before giving it to the Prince." The Dauphin recovered and Talbor was made a Chevalier. Then the King induced him to reveal his treatment and the formula which was not to be published till after the death of Talbor who, however, received 2000 louis d'or, or (-19s) and an annuity of 2000 livres (-20s). After his visit to Spain he returned to London where he died in 1681 and was buried in Trinity Church, Cambridge. The formula for his remedy was published in 1682.

There is an interesting bill in the British Museum dated 1675, in which Dr. C. Goodal offers to sell at the "Coach and Horses" in the Physicians College in Warwick Lane "a superfine sort of Jesuit's bark ready powdered and papered into doses at four shillings per ounce or £3 per pound." Also Gideon Harvey states "Sir R. Talbor observing that these Febrifuges were prepared which came very near his own, and fearing lest someone at length might discover it, resolved to buy up all the Quinquina that he could find in Paris and the chief towns of England and France."

In 1677 Peruvian bark appeared officially in the London Pharmacopoeia as "Cortex Peruanus." In 1755 Dr. John Huxham published in his "Essay on Fevers" his well known Tr. Cinchonae Comp. In 1742 Linnaeus established the genus Cinchona, and in 1753 described the species *Cinchona officinalis*, the name being in honour of the Countess of Chinchon and belonging to the Natural Order "Rubiaceae."

#### Charles Ledger's Share in the Dutch Cultivation of Cinchona in Java

Unfortunately the natives of Peru and Bolivia were reckless bark collectors during the end of the 18th century, often destroying the trees and making no attempt to plant new ones. In the early 19th century European importers were apprehensive of a shortage of the drug. In 1839 Royle strongly advocated the introduction of cinchona into India and after long delay through the efforts of Sir Clement Markham, this was carried out, but not before the Dutch had commenced its cultivation in Java. But who was the real hero of the Dutch romance? One **Charles Ledger**, born in the very heart of London, Bucklersbury to wit, who, after travelling in South America for the purpose of buying Alpaca skins for the New South Wales Government, managed to get through a native servant some 14 pounds of seeds of cinchona calisaya from Bolivia. This leaked out and so enraged other natives that they caused his death by their ill-treatment. However, he had managed already to get the seeds sent to his brother in England for sale to the British Government, which Government with lack of foresight refused. The brother then sold half of them to a Ceylon planter,

and the rest to the Dutch Government for about £33. The Dutch consignment produced 20,000 plants in Java thus commencing a very profitable industry.

#### The Chemistry of the Bark Discovered

It must be remembered that up to the second decade of the 19th century, cinchona bark was still used as such. True, Gomez of Lisbon, in 1810 isolated what he called "cinchonino"; but in 1820, September 11, the two French chemists, Pelletier and Caventon, set out to study the whole chemistry of cinchona and were able to prove that "cinchonino" consisted of two alkaloids, one of which they called "quinine" and the other "cinchonine." Then in 1833 Henry and Delondre isolated "Quinidine," followed by Winckler in 1844 with "cinchonidine," while Pasteur produced "cinchonidine" and "quinicine." Altogether some thirty alkaloids have been found to occur naturally in cinchona barks, but quinine possesses the most powerful febrifuge properties of all. The sulphate of quinine is now superseded by the more soluble hydrochloride and hydrobromide. We now move to certain considerations suggested by Norman Taylor's reprint already mentioned.

Quinine is pronounced thus everywhere except in the United States where the common pronunciation is "kwy-nine" with some variants, he tells us. Quinine is admittedly the best specific for controlling malaria, but no one knows why! How does it work on the plasmodium malariae? Has any other drug ever been so widely used with such complete ignorance of its action. Yet its effect is direct and unquestioned. Prescribed in grains it is produced in tons e.g., in 1939 the world consumption was 729 tons, and before Java fell to the Japs, the production reached 1,017 tons. No tropical campaign could then be run without it. The U.S.A., remembering that without quinine the Panama Canal could never have been constructed, and that Gorgas used 40,000 doses daily, took care long before the war to gather the largest stock-pile of quinine ever made in the U.S.A., but that is still a war secret, I believe. We must now listen to the most recent discussion of this subject.

#### Now for the Process of De-bunking the Early History!

Going back now 300 years, once again it has been claimed by A. W. Haggis, writing in the Bulletin of the History of Medicine, October and November, 1941 (published at Johns Hopkins University), that all these legends already quoted had no truth in them; and notably the Countess of Cinchon never had malaria though her husband often did. The Viceroy himself had not been cured by cinchona bark and no one at Lima knew anything about it. As for the Countess she died on her way home to Spain as is proved by the Archives of the

Franciscan Friars at Lima who wrote, "By these presents let it be known unto you how on January 14th of this year 1641 in the City of Carthagena of this Kingdom, our Lord gathered unto Himself Donna Francisca, Countess of Chinchon." Hence there is no mention as to who took the bark to Europe, or when. A Belgian, Herman Van der Heyden, mentioned it in his "Discours et advis sur les flus de venture douloureux" published in Antwerp in 1643. Its history during the next 200 years was marked by extravagance and towards the middle of the 19th century the supply of bark dwindled rapidly. So tremendous was the trade in bark up to that time that England and Holland became seriously alarmed because each had highly malarious colonies which needed large supplies of bark. Holland in the 1850's and England during the American Civil War sent elaborate expeditions to the Andes to secure seeds and plants for starting plantations in India and Java. Both the Dutch and the English failed because they took the wrong species. Then completely unheralded, with no scientific training, no elaborate expedition but a good deal of common sense came the Englishman Charles Ledger, out of whose venture the Dutch made a great success beginning with 1865. Their pound of seed was planted at the Dutch Government Cinchona Plantation under the direction of K. W. Van Gorkom. Of that supply 20,000 seeds germinated and the next year 12,000 seedlings were set out. But as so often happens valuable ventures have to go through long trial and much discouragement. Four men—Van Gorkom, J. C. B. Moens, J. E. de Vry and M. Kerbosch—for 40 years persisted in tending this plantation in the face of bitter criticism not only from the people but from the Government of the Netherland Indies at times. This Government Cinchona Experimental station was ridiculed as an "expensive hobby." No private planters could be coaxed to grow cinchona at first, but later there were over 100 private plantations in Java. Until the island fell to the Japs the descendants of those seeds so wisely collected by Ledger produced most of the quinine in the world. And Moens, a botanist with imagination, named that species of Cinchona "Cinchona Ledgeriana." To illustrate what a difficult task it was to secure standard seedlings it must be realized that Cinchona hybridises as readily as the blackberry. It is still more remarkable when it is known that any knowledge of the ratio of breeding established by Mendel was ante dated by those clever Dutch breeders. Another Dutchman, Hugo de Vries of Amsterdam, re-discovered Mendel's work in 1900. In addition to controlled hybridization, these Dutch practical botanists co-ordinated horticultural and soil science with chemistry and silviculture to a remarkable degree.

#### **Cinchona Needs Special Cultivation**

This meant long range planning for a proper

succession of planting, because the stripping of the mature bark kills the tree. In 1943 the head of the Netherland Indies Cinchona Experimental Station was Mr. M. A. van Roggen. From this station the Government has allowed the sale of, or has given away freely, cinchona seeds. Failures or only partial success both by Governments and private planters are recorded from India, Eritrea, St. Helena, Formosa, Indo-China, Belgian Congo, Reunion, the Caucasus, Madagascar, Hawaii, Tanganyika, Queensland, Burma, Uganda, the Cameroons, Jamaica and California. Also somewhat more successfully in the Philippines. More recently the U.S. Department of Agriculture has grown thousands of cinchona seedlings at Beltsville, Maryland, under glass. These are shipped to those Andean slopes from which cinchona was first taken. It is a long and difficult task, because the main harvest of bark comes only after fifteen to twenty years, and there are many pitfalls. Cinchona culture requires elevations of 4,000 to 11,000 feet with cool, rainy conditions and good soil drainage.

#### **The Post-war Situation**

What is the situation today? The commercial extraction of quinine is possible in normal times only where the bark contains 6% or more of quinine. Javan trees never yield less than this. Most wild cinchona in South America is lucky if it contains 3% of quinine. The reason why the Ceylon plantations about 1900 were a failure, was because Java bark came into full production about that time, and it was the same with the South American wild bark trade. So it happened that nearly all the world supply of quinine up to March, 1942, was produced from Java bark mostly extracted by the Bandoeny factory; and the rest by a handful of European factories, and by two U.S.A. manufacturers. This combined production was sufficient for the world's needs until the middle of the war period when the ultimate stoppage of Java shipments took place. Despite this foresight, something like panic took the U.S.A. in March, 1942. People foolishly charged in the newspapers that there was "hoarding," "fixing of prices," "Government incompetence," "speculation," and "monopoly." Despite the fact that their ignorance of the real situation matched this foolish clamour, the U.S.A. Government silenced them by issuing three orders: (1) Quinine was limited to its use in malaria, because even if 35% of all cold remedies did contain quinine, war's demands were paramount; (2) Totaguina was produced, the name and the formula were invented by the League of Nations Malaria Comm. It contains the total alkaloids of low yielding barks of India, Malaya, and the Philippines, plus some quinine; and (3) all imports of cinchona bark from Tropical America and the price thereof were controlled. With the exception of the use of quinidine in auricular fibril-



lation quinine and totaquina must be used only for malaria. Also synthetics like Quinacrine (atebrine) and pamaquine (plasmochin) have been much used. Although Woodward and Doering of Cambridge, Mass., claim to have made a synthesis of Quinine recently, it is not yet quoted as equal to natural Quinine.

The position of substitutes can be best appraised by the 1937 report of the League of Nations Malaria Committee entitled "The Treatment of Malaria," which contrasting tests from all over the world of current substitutes, states: "Among these drugs Quinine still ranks first in current practice by reason of its clinical effectiveness and almost complete absence of toxicity coupled with the widespread knowledge of its use and dosage."

The name Malaria signifies the old belief that this disease came from the noxious evaporation of swamps. Sir Ronald Ross was the first to prove that the Anopheles genus of mosquitoes was the only carrier of the plasmodium parasite. Even though few people now follow Shakespeare's idea of Malaria when he wrote in "Julius Caesar" warning Brutus not "to dare the vile contagion of the night," that was written before cinchona bark had reached Europe. Fifty years later the bark became the subject of strange stories, of court intrigue, of ecclesiastical bickering, and a bitter battle amongst medical men. But it survived all this, and finally through the isolation of Quinine one of the few great specifics of Medicine was established. This result suggests that perhaps it was worthy of such a claim.

#### The 19th Century Story of Sappington

It may be worthwhile to note that European malaria was far more prevalent in the 16th, 17th and 18th centuries than people of the present day realize; but comparatively few people realize how prevalent it was in the U.S.A. in the 18th and 19th centuries. In the present century it is calculated that all over the world there are annually 800 million cases with over three million deaths. Dickens book, "American Notes," describes the huge swarms of mosquitoes round a swampy area without any exaggeration. In the early part of the 19th century in the Mississippi Valley and the tributaries thereof, malaria was a curse, but no one knew its cause. If you go to a place called Arrow Rock, a small town on the south bank of the Missouri River, there hangs in the Old Tavern

a portrait of Dr. John Sappington, a pioneer in the use of Quinine for combatting malaria. If in the 1830's you had stopped at Arrow Rock you would wonder why the bells of the Methodist church were being rung, you would be told, "Oh, everyone is being reminded to take Dr. Sappington's pills." These pills contained mostly Quinine which as recently as 1820 had been isolated from cinchona bark by Pelletier and Caventou; and in 1823 the first Quinine factory was established in Philadelphia. Now this Dr. Sappington, but for a slightly different reason, became almost as well known as his direct descendant, Ginger Rogers, so Norman Taylor says!

In the early 19th century and even later, doctors, so-called, might or might not have legal licenses to practise. However, though he was sometimes declared to be a quack, his name is included in the "Dictionary of American Biography." Sappington knew that Quinine was a specific for malaria, which was ruining the health of his own neighbours and many pioneering folk. So Sappington sent his son to Philadelphia, to buy a certain number of ounces of Quinine then worth about \$3.00 an ounce; but the youth actually bought **pounds** instead of ounces, which nearly ruined his father! Nevertheless, knowing its value he made "Dr. Sappington's Anti-fever Pills" for sale, and soon had pill peddlers all over the Mississippi Valley! Of course, he had many detractors, especially those medical men who had been taught to bleed these already depleted ague patients, but the medical historian, Dr. Robert J. Terry, had this to say about Sappington: "The Mississippi Valley is today the home of millions. Who will say that the distribution of Quinine in the early days was not a great factor in establishing homes and settlements in a region infested with malaria? Was it less of a contribution to civilization than today's triumphs of sanitation?"

The French Government thought so much of the isolation of this famous alkaloid by Pelletier and Caventou on September 11, 1820, that you could see the noble bronze statue to these scientists erected on the Boulevard St. Michel in Paris in 1900 only to be ravaged by the Nazis in 1942 for armament purposes!

In conclusion is there any drug around which so much romance has been woven, the truth being even stranger than the fiction?

## The Canadian Arthritis and Rheumatism Society, Manitoba Division

The Canadian Arthritis and Rheumatism Society was incorporated under Letters Patent on March 15th, 1948, with head offices at 74 Sparks Street, Ottawa. This body consists of both medical and lay persons who have become especially interested in the provision of adequate care for those suffering from arthritis and rheumatic diseases. The business of the Society is carried out through a Board of Directors with Dr. Wallace Graham of Toronto, as its President, and Mr. Edward Dunlop of Ottawa, as its Executive Secretary. The Board of Directors includes fifteen members of the Society and three chosen representatives of each provincial division of the Society.

The objectives of the Society may be briefly summarized as follows:

(1) To co-ordinate and correlate the efforts of individuals and organized bodies with a view to reducing the morbidity and mortality in Canada from arthritic and rheumatic diseases.

(2) To aid in promoting measures and facilities for the prevention, diagnosis and treatment of arthritis and rheumatism and the rehabilitation of victims thereof.

(3) To assist in the training and education of professional and other personnel as may be required to further the objects of the society.

(4) To prepare, collect, assess and disseminate information and material relating to arthritic and rheumatic diseases.

(5) To assist in the establishment of facilities for the purpose of research.

(6) To provide assistance, financial or otherwise, for any programme of education in the field of arthritis and rheumatism, either lay or professional.

(7) To obtain money by way of public appeal or otherwise and to receive gifts, bequests and donations of property, both real and personal.

(8) To make grants, to lend money to or guarantee the contracts of or otherwise assist any corporations, societies, associations, partnerships, agencies, organizations or individuals who are engaged in activities which in the opinion of the society may usefully be carried on to further the objects thereof.

The financial resources of the organization have depended to date upon a donation from the Canadian Red Cross, and from an allocation of money from the general public health grant given in 1948

by the federal government. Each province has specified that one per cent of its share of this grant be so used. In addition, the Society plans a drive for funds from private subscription. It is expected that this will take place in May, 1950.

To date the organizing committee of the Society has approved the formation of Divisions in the following provinces: British Columbia, Alberta, Saskatchewan, Manitoba, Ontario and Quebec.

### The Manitoba Division

At a meeting of the organizing committee of the Canadian Arthritis and Rheumatism Society on September 9th, 1949, approval was given of the formation of a Division of the Society in the Province of Manitoba.

The first Board of Directors of the Manitoba Division consists of:

Dr. J. D. Adamson—President.

Dr. R. H. McFarlane—Executive Secretary.

Drs. L. G. Bell, F. G. Allison, M. T. Macfarland, F. R. Tucker, D. S. McEwen, S. D. Rusen, Alexander Gibson and C. R. Donovan.

It is planned to enlarge this Board to include other medical men who are interested, and also to include a proportion of lay persons.

The objectives of the Manitoba Division are of necessity limited at present, as the work of organizing the Division has just begun. Its chief concern now is the setting up of diagnostic and treatment facilities in the Winnipeg area. Further elucidation of the problem of arthritis and rheumatic diseases throughout the province will be necessary before much can be done in this regard in other centres. It is hoped that eventually some support will be available for diagnostic and treatment facilities elsewhere in the province.

A special arthritic clinic has been arranged through the Out Patients' Department of the Winnipeg General Hospital. This facility at present offers its services only to those whose economic necessity makes it impossible for their care to be arranged privately.

It is also expected that long-term hospitalization for certain cases may be arranged at the Princess Elizabeth Hospital when that institution is opened.

The future activities of the Manitoba Division will be concerned with plans for extension of services for arthritic patients and with the financing of such services. It will be appreciated if anyone with suggestions to make in this regard will get in touch with the Executive Secretary.

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## EDITORIAL

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J. C. Hossack, M.D., C.M. (Man.), Editor

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### The Grand Old Man

You will notice that we have printed two contributions from Dr. Speechly. The reason is that on November 1st he celebrated the anniversary of his birthday for the eighty-third time. For Speechly, having birthdays has become a habit in which, we all hope, he will continue to indulge for a long time. No one who knows him or sees him would believe that he has been upon the stage for so long a time but after all age is only a matter of opinion. At 80 the biblical patriarchs were barely getting into their stride. On the other hand a lot of people still ambulant, have been dead for a long time.

Dr. Speechly has seen almost the whole development of modern medicine. In his student days the clinical thermometer was a novelty, sphygmomanometers were still figments of physiologists' imaginations and the cardiograph, encephalograph, etc., were undreamed of. He has seen new machines devised, new methods of treatment formulated and most wondrous remedies in daily application. And through it all he has kept pace.

That, however, is less remarkable than his eminence in a variety of vocations and avocations. Perhaps alone in the Dominion he has simultaneously practiced three professions — medicine, theology and law. Not only has he been tending the sick for sixty years but for much of the time has been a lay reader in the Church of England, and for many years was the "King's Crowner" (as coroners were anciently termed) a duty which he filled with dignity, wisdom and kindness.

Now, as most doctors have a hard time getting into the late sixties, if, indeed they can get so far, the question arises how has Speechly managed it? Well, first of all he arranged to be born in India where he was hardened against a lot of epidemical ailments without benefit of "serums." Second, he is a "son of the manse" for his father was Bishop of Travancore. The clergy and their children are notorious long-livers. Third, he made sure that his healthy mind was furnished with a healthy body for he has always been an active athlete. He still engages in such games as cricket and bowling. Fourth, he has always had an intense interest in Nature. Almost every living thing, vegetable and animal, has roused his curiosity and stirred his interest. From India's coral strands to Manitoba's icy plains earth, water and sky teemed with intriguing speculations. Perhaps the secret of

long life lies in the word "interest." So long as interest is maintained troublesome life-shorteners such as anxiety, high blood pressure et al have a hard time getting in their dirty work. And Dr. Speechly's interests are many and varied, suited as they should be to private meditation and public activity.

The "M" in the middle of his name stands for Martindale but might quite as well stand for Mosquito for one cannot think of Mosquitoes without thinking of Speechly and vice versa. In mosquito circles his name is anathema maranatha. Saul, it is written, slew his thousands and David his hundreds of thousands but that referred to Philistines, Amalekites, etc. Speechly, on the other hand has slain his billions of trillions of Anopheles and Culices—tribes much more worthy of extinction.

Years ago when the spirochete had not yet become a topic of conversation in respectable circles Harry Speechly was on its trail. He was most active member of the Health League and did his part in attacking the vicious problems of venereal disease.

Now, strangely enough, while he frowns and stamps upon such tiny creatures as the mosquito and spirochete he throws his strong protective arm around—you'd never guess—the white whale! The white whale is a harassed, persecuted creature almost without friends and threatened with extinction. Here is a challenge to a good Knight Errant and Sir Harry armed cap-a-pie and with lance in rest is doing battle for the whale even as Sir Galahad went asuccoring fair maidens.

This does not exhaust our hero's activities. He has for years been a leading figure in the Traffic Commission, he played a founder's role in the Manitoba Museum and as a horticulturist he is widely recognized.

It is perhaps possible (though I doubt it) for such a record to have been acquired by a dyspeptic, disgruntled "Gloomy Gus." But Speechly is full of charm. He has the most disarming smile, the most winning manner, the gentlest courtesy—in short he is a fine old gentleman, the Grand Old Man of Manitoba Medicine. And of his colleagues he is probably the busiest and most bustling, finding the days not nearly long enough for all he wants to do. Which is a very good reason for us to wish him a sufficient number of future birthdays to catch up with his work—which is a lot of birthdays.



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## ASSOCIATION PAGE

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Reported by M. T. Macfarland, M.D.

### Addendum to Executive Committee Report—Annual Meeting 1949

Mr. President:

We beg to submit, for the attention of your executive the following report, based on the observations made by the committee appointed in December, to study the provincial government's health plan in respect to "diagnostic services."

Our remarks will refer largely to the diagnostic unit established at Dauphin, since we are familiar with it and since it is being used as a model by the government for the planning of future health and diagnostic units.

We will attempt to give you a general background on which to build your impressions and further to suggest certain steps which may be taken by the Manitoba Medical Service to offer a more realistic approach to the problems of health care as they affect us in this province.

#### General Background

##### Origin and Purpose of Diagnostic Services

The plans for providing health care through the provincial government or any of its agencies seems to have arisen for many reasons but three are probably basic. First would appear to be the great tendency toward specialization within the medical profession. This tendency, bringing with it an increased cost of consultation and investigation, has made the cost of a great part of human ills prohibitive for the average wage earner. Secondly, this country, along with many others, has become increasingly conscious of its obligations in the field of social services. This growing conscience has manifested itself in many ways, not the least of which is the desire to give a more complete type of health care to a greater number of its citizens. For the implementation of such a scheme, people have turned to governing bodies for guidance. That this is true is shown by the fact that all major political parties have now pledged themselves to some type of medical care programme. The third factor which would appear to have a bearing on the origin of these plans, was the desire to encourage practitioners to carry on their work in the rural areas of Manitoba; this was particularly the case during the war years.

Accordingly then, the legislature passed the Manitoba Health Services Act in 1945, providing for the establishment of health unit areas administered by a health officer and his staff. This staff was to be responsible for all public health measures within its boundaries and this was to include provision for the treatment of venereal disease.

Following closely the organization of health units was the setting up of laboratory and X-ray services. These "diagnostic units" were originally to be set up only in those areas where a health unit already existed. The legislation on this matter has recently been amended so that any area may now have a diagnostic unit without having a health unit.

The provincial authorities approached those municipalities concerned and reached an agreement whereby these facilities could be offered to the people. The original estimate was that these services could be given at a cost of fifty cents per capita apart from capital costs. Therefore, the province undertook to guarantee the capital costs for setting up adequate facilities for the district and further agreed to pay thirty-three cents of the operating costs if the municipality would pay seventeen cents. On this basis the first diagnostic service was established in Dauphin and included the town of Dauphin, the rural municipalities of Dauphin, Ochre River and Ethelbert. These agreements were all made without the advice or the agreement of those people who would be most directly associated with them--the Medical profession.

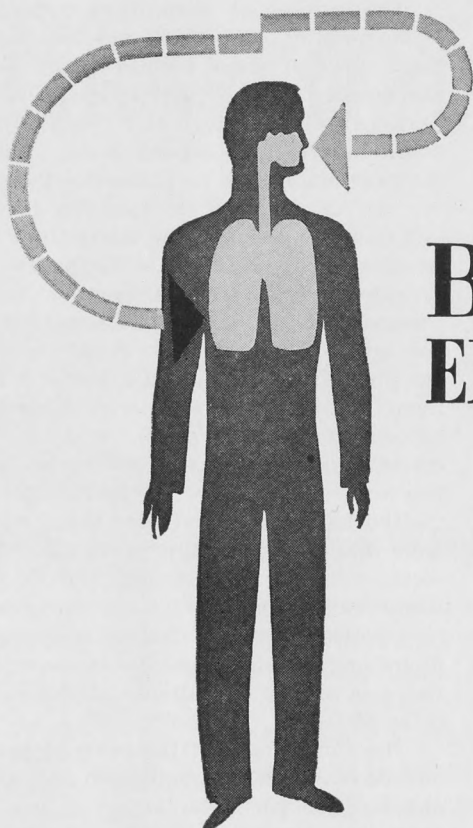
The basis for payment of these services, apart from that already outlined, was that all laboratory services would be free and that X-ray services would be paid for on the basis of one dollar for the first plate and twenty-five cents for all following plates up to a maximum of seventeen plates. There was also to be a consultant radiologist to interpret these plates.

The third phase of the over-all health plan as outlined in the Manitoba Health Act is the curative phase. This particular aspect of health care has not been entered into as yet by the government so that it is impossible to say what form it will take, but it is likely to be implemented whenever a dominion scheme is set up and will almost surely be marked by an invasion of the realm of private practice by governing bodies.

#### Administration of Diagnostic Services

The administration of the diagnostic units presents problems of its own. The nominal head, of course, is the Minister of Health and Public Welfare, but as is easily seen, he cannot be the practical head of such a scheme. This authority is therefore vested at the present time in one of his deputies, namely the Director of Extension Health Services. This man in turn is stationed in the department in Winnipeg and therefore is unsuited to be the actual overseer of the activities of the

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diagnostic unit. The details then fall to the director of the Health Unit who is officially not concerned with the affairs of the diagnostic unit. It is found therefore that any decisions that must be made concerning improvements or changes cannot be made at the local level but must be referred to someone not conversant with the local situation and not primarily or solely interested in the practice of medicine. It is also well to remember that the staff of the diagnostic unit are members of the civil service and as such are entitled to hours which certainly do not accommodate office patients. There is no question that the technicians are on call at all times but it has happened many times that patients were sent away because it was five o'clock and told to return the next day.

It can therefore be seen that the people who are using the service have no control at a local level. Extra staff cannot be hired; inefficient staff cannot be fired; changes cannot be made without interdepartmental correspondence and long intervals of time. It can also be seen, and it is wise for the taxpayer to remember that this service is necessarily limited by the budget allowed by legislature. In the present good times it is not too hard to find the money to provide these services but if our economy drops a little then our service will undoubtedly be curtailed markedly and the present scheme might easily become worthless.

#### Effect of Diagnostic Services

Against this general background, one should try to picture the effect that the inauguration of diagnostic services has had on the two classes of people most concerned: (a) the patient, (b) the doctor. It might be well, also, to examine the true purpose of these plans. The government has been accused by some of proposing this plan as a vote-catcher and there indeed may be those who have this in mind, but we feel we must have more faith in the integrity of our public servants. Laying aside all considerations of a purely political nature, it must seem obvious that certain considerations based on the causes of such health plans must have entered the minds of the responsible authorities. In the first place the attempt to provide medical care for a greater number of people must have been of paramount importance. Secondly, an attempt to provide the care of routine illnesses at home and at a minimum reasonable cost, without the cost of specialist care, except where necessary, must have been also a major consideration. Interwoven with these considerations must have been a thought that this plan would help to keep the rural practitioners in the country and entice younger graduates to rural areas. These, we believe, were the main objectives to be reached in the presentation of this plan; otherwise we cannot see how it would be accepted.

Following this line of thought, it might be well to ascertain whether or not there were any fallacies in the reasoning behind the scheme. To follow the thought that we could by this means provide better medical care for more people, it is important to note that the government has planned to set up these facilities not in areas where medical care has been hard to obtain, but in fairly densely populated parts of rural Manitoba. Now this is sound policy financially but it does not give medical care to any greater number of people than could have had it before. As regards the type of care offered, we think everyone would agree that the great bulk of human illness is not occasioned by organic disease but is rather of psychosomatic origin. It is also, we believe, fairly firmly established that the public has been lulled into a false sense of security by thinking that the diagnosis can be made by the unit. In the Dauphin area at any rate, there has been a disruption of the patient-doctor relationship which is so invaluable in the treatment of illness. It would therefore seem doubtful whether the care now given is in any sense equal to that previously offered. In this regard it might be suggested that people who were previously unable to afford complete laboratory and X-ray investigation may have this benefit now at a minimum of expense and this, of course, is true and remains the strength of such a plan. It should not be concluded, however, that these people are present in great numbers. Insofar as the medical care of these people is concerned, we think it is true that none of them have ever been denied the best care that could be given them without consideration of finances on the part of the doctor.

Let us then consider what effect this plan has had on the man in rural practice. If he is practising in a diagnostic unit area but not within the town that houses the unit itself, he is obliged to do one of two things; first, he can give the service himself and collect nothing from the patient or the government since the patient feels that he is entitled to such care free of charge, as indeed he is, and the government makes no provision to pay the doctor. Secondly, he can refer the patient to the neighbouring town in order to have certain tests done. This has many implications, i.e.

(a) The patient must make a trip to a nearby town, have his tests done and then return to his own doctor for the results. If he is a farmer this actually means at least three trips all of which raise the cost of the service above what it would have cost had his personal physician done the work.

(b) Rather than go to all this trouble the patient may choose or the local physician may recommend that he bypass his own town and consult a physician in the unit town where he can

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have the tests done and get the results the same day. This has happened on many occasions and tends to discourage rural practice except in those towns which house the diagnostic facilities. Even in Dauphin the medical men are far from pleased with the diagnostic unit and have so intimated to the Minister of Health.

Even in those towns where the diagnostic facilities are placed the delay in obtaining reports is proving a burden and necessitates many extra office calls which are time-consuming and for which there is no payment.

Any discussion of diagnostic units should not be carried to a conclusion without a few remarks about the actual cost of such care. We have already intimated that there are many hidden costs such as extra transportation, extra office visits, etc., but there remains an item which looms very large in the provision of such service. At the present time the government is on record as stating that the actual cost of operating the diagnostic unit in the Dauphin area is seventy-eight cents per capita. This, of course, does not include capital costs which probably amount to one hundred and fifty thousand dollars. But it also does not include any charge for heat, light or rent or the travelling expenses for the consultant radiologist and other officials who must and do make frequent trips from Winnipeg to Dauphin.

All these discussions are, of course, meaningless if we have nothing constructive to offer in place of what the government now offers us. To do this we must be honest and practical. The medical profession must be prepared to face the fact that the profession itself has in many ways caused people to think in terms of some form of socialized medicine. It must be agreed that no person should be financially crippled, as they often are now, as the result of any but long chronic illness. It is also true that there are certain sections of our province that require a more complete medical programme. No other class of society should realize as should physicians the effect of illness upon happiness, prosperity and intelligence. We feel that the time is long overdue when medical men should sit down together and re-assess their obligations as a profession. We, with the rest of society, have let our values slip and have become more interested in material than moral values.

This, of course, does not establish the actuality of improved medical care at a reasonable cost. Any such plan demands certain prerequisites to its inauguration.

1. It must allow free choice of doctor.
2. It must allow reasonable costs to the patient.
3. It must allow fee-for-service on a free enterprise basis.
4. It must protect the status of the general practitioner as the first-line of defence in medical practice.

We, in Manitoba, are fortunate in having a plan of medical care already proven which can fulfill all the above requirements and which seems to us to present the answer to the problem in this province.

The Manitoba Medical Service, were it extended to cover all parts of the province, seems to us the logical answer to this problem. Its cost is reasonable; it allows free choice of doctor; it pays for medical care on a fee-for-service basis; it protects and would even tend to encourage the general practice of medicine in rural areas. It could offer diagnostic services on a financial basis equal to or better than the present provincial government plan and the provincial government, through its welfare department, could subsidize the premiums of indigents probably with less money than it now spends on their care.

The whole problem seems to us to be one on which the government and the medical profession must meet on an equal basis—each willing to give certain concessions to the other but finally reaching a definite understanding about the rights of the other and honouring this understanding.

We are therefore of the opinion, Mr. President, that the present plan for the provision of diagnostic services under the Manitoba Health Services Act, is detrimental to the over-all health care of the people in Manitoba and should be amended. We would recommend, therefore:

1. That the M.M.A. go on record as opposing the present provincial government plan for diagnostic services.
2. That the M.M.A. immediately propose to the Minister of Health that a study be made of pre-paid plans for diagnostic services such as offered by the Manitoba Medical Service. The government might well subsidize the payment of premiums for indigent patients.
3. That a copy of this report be sent to the Health Services Advisory Commission, the Minister of Health, the Manitoba Medical Review for publication and to the Winnipeg daily newspapers for editorial comment.

(Signed) C. W. Wiebe, M.D.





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### Addendum to Paragraph 46 of Committee Reports to the Annual Meeting, 1949

Report of committee appointed by Executive, M.M.A., September 7th, 1949, re plans A and B for subsidized diagnostic cancer clinics for referred rural patients in Winnipeg General and St. Boniface Hospitals.

Plan A comprises a social worker, a clinic director, internes and doctors to take histories, make examinations and order investigations in the hospital, and a group comprised of Pathologist, Radiologist, General Surgeon, Internist and the Director, to decide on the diagnosis or order biopsy or laparotomy. Patients may be referred to consultants for special examination. Personnel will be appointed by the Cancer Institute on recommendation of the clinic director or the hospital staffs. All workers except internes are to be paid by the Institute. Hospitals are also paid for services rendered. Treatment will be carried out by specialists suggested by the referring doctor or by the clinic if the doctor does not submit a name. Conferences will be held for teaching. Records will be kept. Patients in whom cancer is not found will be held liable for the cost of the investigation.

Plan B is much less cumbersome and expensive. The clinic at each hospital is staffed by an internist, a radiologist and a pathologist. Rural patients with obvious or suspected cancer may be sent here by the local doctor to be registered. They can be shown at the present weekly Tumor Clinic and then referred to a diagnostician chosen by the local doctor or the patient for necessary investigation, either in or out of hospital. If cancer is found the Cancer Institute will pay for the diagnostic investigation out of the \$80,000 voted for rural cancer diagnosis. Otherwise the patient is expected to pay.

The Manitoba Medical Association is, naturally, keenly interested in better diagnosis of cancer, but does not feel that the suggested plans would be any improvement over the present method. At present private patients are sent direct by the country doctor to a consultant who has the necessary investigation done and either treats the patient himself or refers him to someone else for treatment. Indigent patients are referred to the Out-Patient Departments for free investigation and treatment by qualified personnel. All patients in

hospital for cancer treatment are automatically registered on special forms. Private or indigent cases of special interest are at present shown at the Tumor Clinics.

A Cancer Diagnostic Clinic is an anomaly, as the diagnosis of cancer cannot be divorced from the diagnosis of every other disease. Moreover, cancer diagnosis cannot be separated from treatment. In fact, the diagnosis of cancer is usually either made or confirmed at operation.

The suggested clinics would not get earlier diagnosis. Few patients would save expense if the time, transportation and living costs expended going to the registry, the Tumor Clinic, and finally the consultant, were compared with those of going direct from the country by appointment to the consultant of the doctor's choice.

The Executive of the M.M.A. feels that the most efficient plan is for rural people to insure themselves against all medical expense by joining the Manitoba Medical Service. It is expected that the service can be widely offered in the country next month. A prepaid scheme leads to earlier diagnosis of all disease.

Indigents who cannot afford this service are welcome at the Out-Patient Departments, but some cannot pay for transportation and living expenses during investigation. A scheme for indigents suspected of cancer by the local doctor to obtain railway vouchers and boarding house or hotel accommodation through the Cancer Institute might be a good way to expend the money available. It would have the merit of bringing to the city for diagnosis and treatment many patients who could not otherwise come.

#### Addenda to Report

THAT the Manitoba Medical Association suggest to the Cancer Relief and Research Institute that the \$80,000.00 now available may be used:

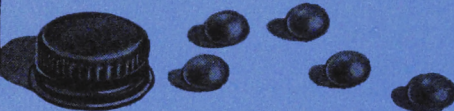
Firstly, for transportation, hotel and hospital bills incurred by all rural patients for the diagnosis of cancer;

Secondly, that money may alternatively be used to subsidize the insurance premiums for Manitoba Medical Service for all rural patients.

(This report was not received by the Annual Meeting and the operational plan suggested by the Cancer Relief and Research Institute was considered unacceptable. The matter was referred to the new Executive for further study with power to negotiate a satisfactory alternative).



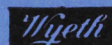
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## SOCIAL NEWS

Reported by K. Borthwick-Leslie, M.D.

Your "Review" is late. Your Gossip Column is the cause. Your Gossip Editor apologizes for the delay.



Congratulations to Dr. Pat H. McNulty, who has been appointed a Fellow of the American College of Surgeons. Convocation was held in Chicago, October 21st.



Dr. A. D. MacLean reports from the Royal College of Surgeons, Resident College, London, England, that working hard can be fun even under "Austerity Conditions."



Dr. Marie Cameron, Supt. of Hospital Biblico San Jose, Costa Rica, is enjoying a well deserved leave of absence after six years of interesting but hard work.



Dr. J. E. (Ted) Musgrove, M.S., F.A.C.S., F.R.C.S. (C), Diplomatic American Board Surgery, announced the opening of his office for the practice of General and Thoracic Surgery in the Teglen Bldg., Edmonton, Alta. The best for the future, Ted.



Dr. and Mrs. A. Morse are en route to London, Eng., via New York, to spend some months with Dr. and Mrs. John A. Moyse.



Birthday congratulations to Dr. H. M. Speechly, born in Cochin, South India, November 1st, 1866.



The first social function of the Medical Women's Branch, was highly successful. A Wiener Roast on the river bank, a welcome to the new lady Medical Students.

On October 22nd Westminster Church was the scene of the marriage of Helen Joyce Landerkin, Pilot Mound, Man., to Dr. Neil Ralph Kippin, son of Dr. and Mrs. Kippin, Newdale, Man.



Also on October 22nd in St. Stephen's-Broadway United Church, Mona Rosamund Lee, became the bride of Dr. James Comrie McCawley, graduate of the Manitoba Medical College. On their return from a motor trip to the U.S.A., Dr. and Mrs. McCawley will reside in Winnipeg.



Just when I decided that our friend the Stork had retired in favor of ducks and geese, along comes the baby daughter of Dr. and Mrs. C. B. Schoemperlen, October 21st, and in Oshawa, Ont., October 26th, Dr. and Mrs. T. M. Vant announce the birth of their son (John Robert).



The Annual Dinner of the Medical Defence Group at Fort Osborne Officers' Mess was unusual, excellent and enjoyable. Dr. Hartley Smith, back from Toronto Defence Meeting, turned over the president's chair to Dr. Wendell McLeod. Dr. J. Hillsman, speaker of the evening, gave a brief account of his recent course in "Atomic Factors" in Washington and New York.



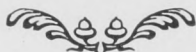
Dr. and Mrs. R. M. Ramsay are holidaying in the U.S.A. after attending the Ophthalmology meetings in Chicago. They are expected back the first week in November.



Dr. Norman Elvin is in the North Country, Flin Flon, Churchill, etc., on his annual tour, he also will be back the first week in November, pending flying conditions of course.



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MONTREAL

CANADA

589

**Department of Health and Public Welfare**  
**Comparisons Communicable Diseases — Manitoba (Whites and Indians)**

DISEASES	1949		1948		Total	
	Aug. 14 to Sept. 10, '49	July 17 to Aug. 13, '49	Aug. 8 to Sept. 4, '48	July 11 to Aug. 7, '48	Jan. 2 to Sept. 10, '49	Dec. 28, '47 to Sept. 4, '48
Anterior Poliomyelitis .....	34	12	50	18	58	75
Chickenpox .....	19	31	53	123	929	2028
Diphtheria .....	1	2	1	4	16	19
Diphtheria Carriers .....	1	0	0	0	3	3
Dysentery—Amoebic .....	0	0	0	0	0	0
Dysentery—Bacillary .....	0	1	6	1	8	11
Erysipelas .....	3	0	4	2	21	27
Encephalitis .....	9	3	2	0	12	3
Influenza .....	14	9	3	2	175	124
Measles .....	54	129	56	56	4970	562
Measles—German .....	3	4	1	2	98	34
Meningococcal Meningitis .....	3	0	3	2	20	13
Mumps .....	11	18	76	70	895	1423
Ophthalmia Neonatorum .....	0	0	0	0	0	0
Pneumonia—Lobar .....	4	7	9	5	139	126
Puerperal Fever .....	0	0	0	0	2	1
Scarlet Fever .....	7	4	14	17	75	169
Septic Sore Throat .....	2	0	3	1	25	18
Smallpox .....	0	0	0	0	0	0
Tetanus .....	0	1	1	1	2	4
Trachoma .....	0	1	0	1	1	1
Tuberculosis .....	210	124	84	74	776	1264
Typhoid Fever .....	1	1	2	1	7	8
Typhoid Paratyphoid .....	0	0	0	1	0	2
Typhoid Carriers .....	1	1	0	0	3	0
Undulant Fever .....	1	2	0	0	9	11
Whooping Cough .....	11	8	31	17	149	256
Gonorrhoea .....	126	125	145	118	986	1037
Syphilis .....	22	35	31	33	290	345
Diarrhoea and Enteritis, under 1 yr.	38	23	9	8	156	135

DISEASES	1949		1948		Total	
	Sept. 11 to Oct. 8, '49	Aug. 14 to Sept. 10, '49	Sept. 5, to Oct. 2, '48	Aug. 8 to Sept. 4, '48	Jan. 2 to Jan. 29, '49	Dec. 28, '47 to Oct. 2, '48
Anterior Poliomyelitis .....	36	33	38	50	93	113
Chickenpox .....	21	19	94	53	950	2122
Diphtheria .....	0	1	2	1	16	21
Diphtheria Carriers .....	1	1	1	0	4	4
Dysentery—Amoebic .....	0	0	0	0	0	0
Dysentery—Bacillary .....	5	0	0	0	13	11
Erysipelas .....	1	3	2	4	22	29
Encephalitis .....	15	9	1	2	27	4
Influenza .....	5	13	5	3	179	129
Measles .....	93	54	45	56	5063	607
Measles—German .....	2	3	0	1	100	34
Meningococcal Meningitis .....	1	3	0	3	21	13
Mumps .....	13	11	106	76	908	1529
Ophthalmia Neonatorum .....	1	0	0	0	1	0
Pneumonia—Lobar .....	5	4	3	9	143	129
Puerperal Fever .....	0	0	1	0	1	2
Scarlet Fever .....	18	7	19	14	93	188
Septic Sore Throat .....	0	2	0	3	25	18
Smallpox .....	0	0	0	0	0	0
Tetanus .....	1	0	1	1	3	5
Trachoma .....	0	0	0	0	1	1
Tuberculosis .....	119	209	63	84	894	1327
Typhoid Fever .....	1	1	1	2	8	9
Typhoid Paratyphoid .....	0	0	0	0	0	2
Typhoid Carriers .....	1	1	2	0	4	2
Undulant Fever .....	6	1	1	0	15	12
Whooping Cough .....	11	11	19	31	160	275
Gonorrhoea .....	118	126	118	145	1104	1155
Syphilis .....	33	22	32	31	323	377
Diarrhoea and Enteritis, under 1 yr.	43	38	12	9	198	147



## Four-Week Period, August 14 to September 10, 1949

DISEASES (White Cases Only)	*778,000 Manitoba	*861,000 Saskatchewan	*3,825,000 Ontario	*2,962,000 Minnesota
*Approximate population.				
Anterior Poliomyelitis .....	34	43	428	615
Chickenpox .....	19	68	96	---
Diarrhoea and Enteritis .....	38	5	---	---
Diphtheria .....	1	---	4	2
Diphtheria Carrier .....	1	---	---	---
Dysentery—Amoebic .....	---	---	1	10
Dysentery—Bacillary .....	---	1	2	25
Encephalitis Epidemica .....	9	4	2	3
Erysipelas .....	3	4	1	---
Infectious Jaundice .....	---	---	---	---
Influenza .....	14	41	9	1
Malaria .....	---	---	---	1
Measles .....	54	205	96	18
Mumps .....	11	50	136	---
Measles, German .....	3	4	20	---
Meningitis Meningococcal .....	3	1	2	8
Pneumonia Lobar .....	4	---	---	---
Scarlet Fever .....	7	14	33	15
Septic Sore Throat .....	2	2	3	11
Tuberculosis .....	210	72	90	163
Typhoid Fever .....	1	2	6	3
Typh. Para-Typhoid .....	---	---	2	---
Typhoid Carrier .....	1	---	---	---
Undulant Fever .....	1	---	7	32
Whooping Cough .....	11	13	133	16
Gonorrhoea .....	126	---	153	---
Syphilis .....	22	---	44	---

## Four-Week Period, September 11 to October 8, 1949

DISEASES (White Cases Only)	*778,000 Manitoba	*861,000 Saskatchewan	*3,825,000 Ontario	*2,962,000 Minnesota
*Approximate population.				
Anterior Poliomyelitis .....	36	11	126	446
Chickenpox .....	21	33	126	---
Diarrhoea and Enteritis .....	44	3	---	---
Diphtheria .....	---	1	6	6
Diphtheria Carrier .....	1	1	---	---
Dysentery—Amoebic .....	---	---	---	5
Dysentery—Bacillary .....	5	---	10	13
Encephalitis .....	15	2	---	3
Erysipelas .....	1	---	---	---
Influenza .....	5	---	28	2
Measles .....	93	96	93	37
Measles, German .....	2	1	16	---
Meningitis Meningococcal .....	1	1	1	9
Mumps .....	13	16	140	---
Ophthalmia Neonatorum .....	1	---	---	---
Pneumonia Lobar .....	5	---	---	---
Scarlet Fever .....	18	2	47	51
Septic Sore Throat .....	---	---	6	8
Tetanus .....	1	---	---	---
Tuberculosis .....	120	30	74	246
Typhoid Fever .....	1	2	18	3
Typh. Para-Typhoid .....	---	---	2	---
Typhoid Carrier .....	1	---	---	---
Undulant Fever .....	6	---	---	26
Whooping Cough .....	11	20	136	18
Gonorrhoea .....	118	---	221	---
Syphilis .....	33	---	76	---

†Three weeks only.

## DEATHS FROM REPORTABLE DISEASES

For Four-Week Period, August 10 to September 6, 1949

**Urban**—Cancer, 47; Pneumonia Lobar (108, 107, 109), 1; Pneumonia (other forms), 6; Syphilis, 3; Tuberculosis, 7; Diarrhoea & Enteritis, 2; Undulant Fever, 1; Septicemia, 1. Other deaths under 1 year, 17. Other deaths over 1 year, 167. Stillbirths, 6. Total, 190.

**Rural**—Cancer, 33; Influenza, 1; Lethargic Encephalitis, 1; Measles, 1; Pneumonia Lobar (108, 107, 109), 2; Pneumonia (other forms), 7; Poliomyelitis, 1; Puerperal Septicaemia, 1; Tuberculosis, 8; Diarrhoea and Enteritis, 7. Other deaths under 1 year, 25. Other deaths over 1 year, 191. Stillbirths, 12. Total, 228.

**Indians**—Cancer, 1; Influenza, 2; Pneumonia (other forms), 3; Bacillary Dysentery, 1; Diarrhoea and Enteritis, 5. Other deaths under 1 year, 2. Other deaths over 1 year, 4. Total, 6.

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